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## ABSTRACT

This final report covers the operation of the Wyoming Research Coordinating Unit (RCU) during the period June 1966 through August 1969. The purpose of Wyoming RCU is explained and an up-to-date listing of its major activities and accomplishments is included. The four basic activities were to: (1) coordinate local, state, federal and private occupational research activities, (2) design, conduct, and/or assist in the state research and development activities and projects that deal directly with occupational research, (3) identify, assemble, summarize, and disseminate occupational research information, and (4) provide consultant service to personnel in the State Occupational Education Division and to all occupational educators in the schools of the state. An annotated bibliography of educational materials for the RCU is appended. [Not available in hard copy due to marginal legibility of original document.] (GR)

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**FINAL REPORT**  
**Project No. 6-2729**  
**Grant No. OEG 4-6-062729-2083**

**THE ESTABLISHMENT OF A RESEARCH COORDINATING UNIT  
FOR VOCATIONAL EDUCATION IN WYOMING**

Bruce C. Perryman  
State Department of Education  
Capitol Building  
Cheyenne, Wyoming 82001

November, 1969

U. S. Department of  
Health, Education, and Welfare  
Office of Education  
Bureau of Research

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
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Bruce C. Perryman, RCI Director

State Department of Education  
Capitol Building  
Cheyenne, Wyoming

November, 1969

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State Department of Education  
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## SUMMARY

In the midst of more concentrated thrusts of educational change and growth, a low unemployment rate, and the designation by the Wyoming State Board of Education that the State's community colleges assume the responsibility of providing post-secondary occupational education, there was exhibited a need for a central source of concern for occupational research as related to occupational education planning. The Wyoming Research Coordinating Unit was established with federal support for a period of 38 months in June, 1966, to fulfill this need. This summary reflects operations of the RCU during this period.

Sometimes it is not possible to institute as part of the regular occupational education program the special services, and educational aids designed to benefit the academically, socio-economic, and the economically handicapped, because sufficient funds are not available or because other educators or other community agencies require more proof of the necessity for, or the probable success of, such programs before they will extend the necessary cooperation. The answer to this problem inherently is considered a part of developmental, experimental, or pilot research programs.

Equally important is the fact that the regular occupational education program, without proper and valid discovery of its necessity, is merely a rationalization for existence and realistically is terribly inefficient.

The Wyoming RCU was initiated as a service oriented arm of the Occupational Education Division in the State Department of Education. Functionally the Wyoming RCU provides leadership in stimulating research and development activities within the state. In view of its coordinative capacity, the Unit works closely on a multilateral basis with the University of Wyoming, community and/or junior colleges, local school districts, governmental agencies, business and industry, labor and all other entities interested in occupational education research. Through interaction of research with these agencies the Wyoming RCU gains occupational information which has proven valuable and applicable to the improvement and the development of new programs for the State of Wyoming.

It is the intent of the Wyoming RCU to relate all statewide occupational education research activities in such a manner that isolated and uncoordinated research programs and activities become more unified, thereby benefitting all students and professionals engaged in occupational education. The Wyoming RCU is not intended to be a research agency per se even though its staff does become involved from time to time.

The Wyoming RCU initiates activity to stimulate, encourage, and coordinate statewide research or employment opportunities, educational resources development as a base for the planning and development of occupational curricula, staff, and facilities as well as the broad field of occupational education at all levels. Although the Wyoming RCU staff has conducted research projects, its primary staff function has been that of coordination and providing consultative services on occupational problems.

Specifically the Wyoming RCU follows the broad objectives for RCUs as were set forth in the first national meeting of RCU directors held in Washington, D. C., in July, 1965:

1. Establishment of an atmosphere in Wyoming that commits itself to research and is receptive to it -- especially with State staff, school leaders, and legislators.
2. Stimulate projects, ideas and understanding of research.
3. Provide leadership in research related activities . . . seminars, conferences.
4. Coordinate State education research efforts in the State agency and with other State government and professional agencies and professions.
5. Serve as consultants on research ideas and projects that forward occupational education.
6. Disseminate research information that enables others to utilize recent research findings.
7. Identify research training needs and personnel.
8. Work toward the identification of basic issues and problems needing research.
9. Develop long-range plans for research.
10. Gather or assist in gathering needed data for a potential computer-based system of educational information.
11. Work closely with R & D Center and Project and U. S. Office of Education personnel in coordination of total research effort.

An analysis of the relationship of the activities in which the Wyoming RCU was engaged during the period and the objectives of the Wyoming RCU indicate that the activities undertaken contributed to the eleven objectives above.

The Wyoming RCU has been accepted as the research arm of the Occupational Education Division, and has achieved recognition as an entity to be actively engaged in Division planning.

Throughout the reporting period, the Wyoming RCU staff has been provided with increased opportunities to represent the Occupational Education Division on departmental and interagency committees.

Contacts were made with representatives of numerous institutions, organizations, and associations for a multiplicity of purposes. Some of these were to provide information about the Wyoming RCU and its functions, to

collect information for use in the development of various directories, to learn of training needs, to gather information of value to occupational educators in Wyoming, to lay the foundation for cooperative effort on projects of mutual concern, and to cooperate on projects such as workshops and manpower studies.

Within the Occupational Education Division, there is a need to more closely align practical research with current problems which must be solved. There is a need for integrated planning with more involvement of operation/program personnel. In addition, there is a need to devote more time and effort to point out, to motivate, and to coordinate currently needed research within and between associations, business and industry, communities, educational institutions, and public agencies and to disseminate and share information to a greater extent with these groups.

### I. Introduction

This final report covers the operation of the Wyoming Research Coordinating Unit during the past 38 months, June, 1966, through August, 1969.

On June 24, 1966, the Wyoming State Board of Education received a 36 months' grant to support the proposal entitled, 'The Establishment of a Research Coordinating Unit for Vocational Education in Wyoming.'\* (Project No. 6-2729, Grant No. OEG4-6-062729-2083)

This approved grant subsequently was extended on a no-additional cost basis through August, 1969. Interim reports of objectives and activities of the Wyoming RCU were reproduced and disseminated on a quarterly basis throughout the grant period.

This final report is required at this time to bring up to date the Wyoming RCU activities as carried out under the current grant prior to the transfer to State Administration under provisions of Part C of the Vocational Education Act of 1963, as amended by P.L. 90-576. The Wyoming RCU transfer from its former status to that of being entirely funded through the Occupational Education Division was effective September 1, 1969.

Officially known as the Wyoming Research Coordinating Unit, the Unit was initially housed in, and did ultimately become an integral part of, the Division of Occupational Education.

The Wyoming RCU was officially activated in June, 1966, when Bruce C. Perryman and William H. Nightwine were employed full-time as research information specialist and research assistant respectively. Some three months later Mr. Perryman and Mr. Nightwine were elevated to the positions of Director and Assistant Director respectively. Up to that time, the State Director of Vocational and Technical Education, Dr. George McCutchan, facilitated the

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\*Initially the Wyoming RCU was funded under provisions of the Vocational Education Act of 1963 [P.L. 88-210, Section 4 (c)]

Wyoming RCU's objectives as director.

The director, assistant director, and respective secretarial staff have been housed within the headquarters of the Wyoming State Department of Education in the Capitol Building in Cheyenne, Wyoming. Initially, the Wyoming RCU was housed specifically within the organizational structure of the Vocational-Technical Education Division. This was later changed so that the Wyoming RCU would be housed organizationally under the Research and Development Section. However, as a final assent to unity the Wyoming RCU was realigned with the Division of Occupational Education (formerly Vocational-Technical Education Division), where it is now located permanently. Both locations organizationally gave excellent contact with state consultants in occupational education and the entire State Department of Education, as well as other governmental agencies. Naturally the proximity of physical location in the Occupational Education Division provides the opportunity to continue well-informed of the daily events within the Department and to act in a direct relationship with the State Coordinator of Occupational Education (i.e., State Director of Vocational-Technical Education).

The primary objective of this report is to indicate the major activities and accomplishments of the Wyoming RCU and to denote future activities planned.

During its three years of growth, the Wyoming RCU has been able to increase both its scope of service and value of need. Evaluation of its accomplishments in terms of both quantity and quality of work is satisfactory. However, occupational education in Wyoming is rapidly changing and expanding, and to meet the urgent needs a greatly expanded program of occupational research and development is imperative.

#### PURPOSE

The purposes and objectives of the Wyoming RCU were broadly conceived as follows:

The primary concern of the Wyoming RCU is to coordinate activities related to occupational research projects, activities and information already existent and those planned which would be designed to meet the special occupational education needs of youth and adults. The Unit's attention is to be directed to local school districts, state agencies and federal programs engaging in occupational research activities: curriculum and instruction improvement programs and research dissemination and information procedures that hold particular promise for all youth and adults who are interested in or who may become interested in occupational education.

Specifically, the Wyoming RCU would become engaged in four basic activities:

1. Coordinate local, state, federal and private occupational research activities.

2. Design, conduct, and/or assist, when necessary, in the state research and development activities and projects that deal directly with occupational research. In addition, small grants of funds will be made available to school districts in cooperation with the research entities of the state for the purposes of curriculum improvement, evaluation of materials and programs, and the development of new and improved methods of instruction.
3. Occupational research information that is pertinent to occupational educators in the state office and in local school districts will be identified, assembled, summarized, and disseminated. Student and professional instructional materials for all occupational areas that emphasize the latest occupational theory and practice will be included. The latest advances in the newer media approaches will also be an integral part of these materials.
4. Research consultant service will be made available to personnel in the State Occupational Education Division and to all occupational educators in the schools of the State.

Specific activities related to the above general purpose and objectives as outlined in the project proposal can be found in Appendix A and B.

Throughout the three year period, the emphasis of Wyoming RCU activities has been divided between research coordination and providing the Occupational Education Division staff support. The Wyoming RCU staff has been accepted as a group to perform needed research and planning services in the development of occupational Education in Wyoming.

## II. Methods

The Wyoming RCU is located in the State Department of Public Instruction and is responsible through the Coordinator, Occupational Education Division, to the Assistant State Superintendent of Public Instruction, and ultimately the State Superintendent of Public Instruction (see Appendix C). Unit personnel have a staff function relationship to the Occupational Education Division personnel. The unit also serves in an advisory capacity to the administrative personnel of the State Department of Public Instruction, and through this group to the State Board of Education, on matters related to occupational research.

The coordination of research relationships with the seven community colleges and the University of Wyoming was carried out using the Director and Assistant RCU Director as mobile liaison research coordinators for each institution. The University of Wyoming had two graduate research assistants supported by the Wyoming RCU to assist in gathering information on occupationally related research done at that institution. Graduate assistants have been supported by RCU funds to accomplish specific projects at various times.

During the period covered by this report, the Wyoming RCU staffing pattern included a Director, an Assistant Director and information specialist, and two graduate research assistants, as well as a secretary. Part-time secretarial staff was utilized during peak activity periods and only for short periods of time. The director had primary responsibility for establishing and maintaining coordinative relationships with all concerned entities (see Appendix D). All unit personnel had the responsibility for maintaining working relationships on matters relating to occupational research with those entities actively engaged in, or otherwise concerned about, employment opportunities and education. During the reporting period graduate students were employed on an internship basis to provide the Unit with professional assistance. The internship made financial aid and professional development possible while the individual was enrolled in a graduate program.

Contributing factors to the lack of professional personnel continuity as permanent long-term members of the Wyoming RCU have been the indefinite status of funding and inconsistent state and federal policy regarding legislation and direction of occupational education.

The following procedural description is presented according to the major functions of the Research Coordinating Unit: (1) educational research retrieval and dissemination, (2) consulting services, (3) research proposal development services, and (4) conduct of research. Each is separately described although they are all part of an integrated operation to provide support to occupational education in Wyoming through research.

#### 1. Research Information Retrieval and Dissemination Service

Research information available to state program consultants and local school districts consists of three types:

- (a) Information concerning sources of research funds, both Government and private, has been assembled by the Research Coordinating Unit and made available on request to resource persons planning research projects. Every effort is made to keep this information current, including the status of funds available from each source.
- (b) A bank of up-to-date research information is kept by the RCU including listings of material available from such places as the Department of Public Instruction library, the Wyoming State Library, University of Wyoming, the U. S. Office of Education, Centers for Research in Vocational-Technical Education, Regional Laboratories, ERIC and other federal and state programs such as ESFA.
- (c) Current occupational information resulting from RCU efforts or in conjunction with occupational planning efforts by local school districts for dissemination both interstate and intrastate to interested school and research units.

The above-listed categories represent data which is collected and filed as a regular RCU function. Dissemination is conducted according to the procedures discussed in the succeeding explanation.

Several periodic newsletters and bulletins are published by the Department of Public Instruction. The RCU has used these media to disseminate research information rather than publishing a separate bulletin.

## 2. Consulting Services

The RCU has developed several areas of specialization in which the consulting services have been made available to occupational educators throughout the state.

### (a) Community Surveys

To help insure that the new occupational program offerings were compatible with occupational opportunities and the career decisions of past and prospective students, the RCU designed a three-phase approach to occupational education course planning which included (1) an occupational survey of local and area jobs, (2) a follow-up study, and (3) a student interest survey based on occupational and follow-up information. RCU personnel are available for consultation in each area of the survey.

### (b) ESEA Projects

The RCU has made an effort to bring to the attention of local administrators the fact that ESEA monies can be expended for occupational education. The resources of the Unit have been offered in the development of both Title I and Title III proposals.

### (c) Program Evaluation

The RCU has developed procedures for evaluating new and continuing occupational programs including occupational guidance. The purpose is, of course, to encourage program improvement.

In addition to occupational programs in public schools, assistance has been given to those concerned with the conduct of MDTA programs, Adult Basic Education, etc.

### (d) Research Workshops and Seminars

The RCU has supported and provided, in cooperation with the University of Wyoming, workshops for Wyoming educators which dealt specifically with occupational research problems, procedures, and direction. The purpose is, of course, to stimulate, encourage, coordinate and facilitate a research atmosphere conducive to Wyoming and its concerns.

### 3. Research Proposal Development Service

Very often in the past researchable ideas in occupational education did not progress beyond the idea stage because of a lack of knowledge and time necessary to the development of research proposals. The RCU has been able at least in part, to help fill this gap. Information has been given regarding proposal format and research design. Help has been provided in ascertaining appropriate statistical methodology. The RCU has even helped conduct a review of literature for potential researchers as well as directly assisting with the drafting of a proposal.

The RCU has made an effort to locate sources of funding for unsolicited research proposals from private businesses foundations and government agencies. The current shortage of Vocational Education Act of 1963 Section 4(c) funds has made this search imperative so that the recently developed interest and impetus in occupational research will not be lost.

### 4. Conduct of Research

The trend to specialize in training certain occupational clusters has necessitated state-wide surveys. The RCU, as a centralized state agency, has been able to assist in meeting this need.

Persons concerned with the development of occupational education in Wyoming have had a need for state-wide or regional information on which to base decisions. At the request of the State Coordinator of Occupational Education, the RCU has conducted research, primarily the survey type, to obtain the information important to the planning and implementation of occupational programs.

### 5. Methods of Contact and Public Relations

The Unit staff consisted of three full-time persons, a director, assistant director, and a secretary and two half-time persons, two graduate research assistants. The latter positions have been filled by graduate students in advanced degree programs within the College of Education at the University of Wyoming. All staff members have been involved to a greater or lesser extent in the preparation of publicity materials and in individual or group contacts to promote the Unit's operation. Several examples of important activities engaged in by Unit staff members follow:

- (a) Radio and newspaper releases. The establishment and the continuation of the Unit have been announced through the public relations department of the State Department of Education, and thus have received radio and newspaper coverage in all major sections of the state. Several of the Unit's publications also have received radio and newspaper coverage through this same source. Local research activities of the Unit have from time to time been published in local newspapers throughout the state.

(b) Individual contacts. Individuals too numerous to list separately have been contacted. The director of the Unit has lived in Wyoming most of his life, and has lived and worked in most major areas of the state. Numerous individual acquaintances in a wide variety of organizations and agencies have been contacted by Unit members by phone, letters, and in personal visits.

(c) Speeches to professional groups. The Wyoming Education Association, Wyoming Vocational Association, service clubs, and other professional associations are examples of groups addressed by members of the Unit.

(d) Group conferences. Conferences have been held several times with persons affiliated with a number of organizations, agencies, business firms, etc., such as those listed below under the next heading. Several conferences were held to explore research efforts and the possibility of stimulating additional studies. Other meetings were held as part of an ongoing research effort some of which directly involved the Unit as a partner in a joint research study, or as a consultant.

(e) National or regional conferences. The director and assistant director of the Unit have attended several national and regional conferences during the 38 month period. A description of the conferences, in chronological order, follows:

National planning meeting for RCU personnel, held in the U.S. Office of Education, Washington, D.C., September, 1966.

The 60th annual convention of the American Vocational Association, held in Denver, Colorado, December, 1966.

The Western States Regional Conference, held in Phoenix, Arizona, December, 1966.

Training conference on the Program Evaluation and Review Technique (PERT), at the Ohio State University, Columbus, Ohio, January, 1967.

Attended "Programs in Action: Their Administration and Evaluation" Conference, San Francisco, February, 1967

National RCU Director's Conference, held in Chicago, Illinois, April, 1967.

National Conference on the Diffusion of Educational Ideas, held in East Lansing, Michigan, March, 1968.

Attended Western States Research Coordinating Unit Conference, held in Las Vegas, Nevada, April, 1968.

American Vocational Association Convention held in Dallas, Texas, December, 1968.

National PCU Directors' Meeting held in Salt Lake City, Utah, March, 1969.

Attended Western Region RCU Directors' meeting held in Seattle, Washington, August, 1969.

#### 6. Agencies and Organizations Contacted

The following agencies and organizations were contacted, and to the extent possible a liaison was developed between them and the Unit:

- (a) Department of Employment, State of Wyoming
- (b) The University of Wyoming and the seven community colleges
- (c) Bureau of Census
- (d) CAMPS
- (e) Department of Labor and Statistics
- (f) Several public high schools
- (g) Vocational Rehabilitation Service
- (h) Department of Public Health
- (i) Department of Public Assistance
- (j) Bureau of Economic Research, Univ. of Wyoming

The above list is illustrative rather than exhaustive, and other organizations noted elsewhere in this report are not repeated in the list.

Efforts to coordinate research activities have not been too difficult, because comparatively little research related to the occupational area has been conducted throughout the state. Consequently, there have been few occasions when the Unit could provide consulting services for ongoing research projects. Efforts to stimulate new research likewise has not been too successful. Persons qualified to do research have consistently been engaged in full-time duties to the extent that little time could be found to conduct independent research studies.

The lack of research studies and personnel time devoted to research efforts was recognized early in the Unit's operation. It was decided that the Unit should engage directly in several research projects on a limited basis rather than depend entirely upon others to do the work. It seems now, in retrospect that this was the best procedure to follow. However, a limited staff and geographical locations and distances peculiar to Wyoming have

rendered the conduct of several important studies virtually impossible. Consequently, the studies completed to date are not necessarily representative of those which should receive top priority. The real need which continues to exist is for the employment of research personnel in different areas of the state whose main interest and responsibility is research in the occupational area. Little progress has been made in this respect to date.

## 7. Advisory Committees

The Wyoming RCU utilized the State Advisory Council for Occupational Education as a one-in-the same approach to advisory committee methodology.

## 8. ERIC

The Wyoming RCU has and maintains the complete up-to-date collection of ERIC microfiche from all clearinghouses. It maintains a standing order for all new microfiche and also retains a complete set of all indexes necessary to search ERIC to assist in problem solving.

The RCU works closely with educational agencies, governmental agencies, business and industry, labor and others in an attempt to gain occupational education information and interact with them in research. Direct research is encouraged where needed to determine the needs of potential occupational education trainees and the best means of educating them.

The RCU provides, among others, the following services. It

- (a) Serves as research consultant.
- (b) Serves as central clearinghouse of information on occupational research.
- (c) Assesses research resources of state.
- (d) Assists in design of research and demonstration proposals for which a need has been determined.
- (e) Locates and arranges for professional personnel to conduct specific research projects.
- (f) Provides assistance to the state's educators and researchers in drafting research proposals for submission to funding agencies.
- (g) Coordinates and disseminates results of occupational education research.
- (h) Trains researchers in education research.
- (i) Maintains special collections of research materials in the state's central resource library.

Several of these services are combined in one system - ERIC, the Educational Resources Information Center. ERIC is a major source of the information on educational research available in the RCU office.

ERIC can help many people in Wyoming. It can help school administrators identify programs adaptable to local needs, and plan and develop new programs based on newest research findings.

Teachers can keep informed of new instructional techniques and materials and meet the demands of professional growth and development through ERIC.

ERIC provides students with a vast source of materials for reports, term papers, theses, and dissertations.

Others who can profit through the use of the ERIC system are researchers, information specialists and professional organizations. It is also a good way to acquire a low-cost, individualized collection of materials on a given subject.

Anyone in Wyoming having access to a microfiche reader or a reader printer may check out microfiche from the RCU office.

#### 9. Wyoming RCU Staff Summary

NAME	TITLE OR FUNCTION	PERIOD EMPLOYED	% OF TIME
Bruce C. Perryman	Director	June 1, 1966-Aug. 31, 1967 July 15, 1968 - Present	100% 100%
Gene Schrader	Director	Sept. 1, 1967-July 31, 1968	100%
William H. Nightwine	Ass't. Dir.	June 1, 1966-Aug. 31, 1967	100%
Mrs. Patricia Korp	Ass't. Director & Info. Specialist	Oct. 1, 1967 - July 31, 1969	100%
Donna Wells	Secretary	Feb., 1967 - Aug. 15, 1968	100%
Linda Warrington	Secretary	Aug. 15, 1968 - Present	100%
Jonnie Brenner	Secretary	April 1, 1968 - Oct. 31, 1968	50%
Fred P. Black	Grad. Research Assistant	Feb., 1967 - Aug., 1969	25%
Maurice Goff	Grad. Research Assistant	June 1, 1966-Aug. 1, 1967	25%
Robert Wright	Grad. Research Assistant	Sept. 1967-Aug. 31, 1968	25%
Don Jeanroy	Grad. Research Assistant	Oct., 1968-Aug. 31, 1969	25%
Charles D. Lein	Grad. Research Assistant		25%

### III. RESULTS AND FINDINGS

As already indicated, the Unit has engaged directly in research projects and activities, both singly and in cooperation with other organizations and agencies.

The results or accomplishments of the Wyoming RCU must be viewed both in terms of the total process in which occupational education currently is involved in Wyoming as well as the specific activities that have been undertaken or are being undertaken. The coordination function and therefore, many of the objectives and activities must be of a continuous nature.

The activities of the Wyoming RCU during its grant period might be divided into four categories: research, consultative services, information dissemination, and instruction. A brief description of each of these areas follows.

#### Research

The Wyoming RCU has completed and assisted in the completion of several research and development projects during this reporting period. Significant findings and final research reports on these projects have been reported and disseminated through a variety of channels, ERIC included. Therefore, only brief outlines follow.

One of the first responsibilities of the Wyoming RCU staff was the evaluation and dissemination of the results of a \$25,000 OEO grant to the University of Wyoming to study the education needs of Wyoming's adults.

The purpose of the study was twofold:

- (1) to point up possible improvements in current educational programs in Wyoming,
- (2) To provide a design for intelligent planning to meet future needs. This was accomplished, primarily through ERIC and other information dissemination techniques.

Maurice L. Goff, graduate research assistant for the RCU, completed a project entitled Selected Techniques for Formulating the Questionnaire, Mechanics and Related Materials of a Follow-Up Procedure Dealing with Post-Secondary Vocational-Technical Graduates. Another result of this study was a publication entitled Follow-Up Procedure for Post-Secondary Vocational-Technical Graduates.

A research project entitled A Survey of Vocational-Technical Education Needs in Goshen County was completed in August 1967, by Larry Dodge of Eastern Wyoming College in Torrington, Wyoming.

The study was made to determine vocational needs of Goshen County residents, and to make recommendations from this data for curriculum planning.

The study Occupational Needs of the Socio-Economic, Disadvantaged, and Other Handicapped Youth of Laramie County School District #1, Phase One was directed by Dr. Wilma Hirst, Research Director for the Cheyenne school system. This research was done to determine to what extent jobs exist for socio-economic, disadvantaged youth of Laramie County and to determine the types of training that should be given to prepare these students to enter into these jobs and others in today's complex society. Dr. Hirst wrote an article for the November, 1968 issue of 'The Clearing House' magazine concerning this research project.

Bruce C. Perryman and Bill Nightwine of the RCU staff did nearly six weeks of planning in an attempt to coordinate a four county area vocational school survey to determine need and curriculum necessities in the Big Horn Basin area of Wyoming. However, this work was done under the previous administration in the State Department of Education when the current administration took office after election new policy necessitated a review of occupational education directions in the state of Wyoming. It was decided to terminate this project and commence with the Fremont County survey. Because of the intended Master Plan for Vocational Education in Wyoming, the Big Horn Basin survey was never completed.

The Fremont County Survey of Vocational-Technical Education Needs in Business and Industry was completed by the RCU staff and disseminated in February of 1967. The study had five objectives:

1. Study the projected employment trends for the county's business and industry as viewed by the owners and managers of the business and industry.
2. Reveal the occupational categories in the county in which there is now or is likely to be in the future, either a shortage or a surplus of workers.
3. Determine employer desired course content for different occupational categories.
4. Determine the educational requirements for those occupational categories and specific job titles in which there is difficulty in hiring.
5. Aid in the design of courses and curricula which meet the educational needs of potential employees in the Fremont County area.

The study entitled Determination of Reasons for Practical Nursing Students Discontinuing Their Training at the Laramie MDTA Vocational School of Practical Nursing was completed in November, 1967. Principal investigator of the project was Robert Foree. The study was made to investigate the problem of the high drop-out rate (51%) of the school in question. The study made several recommendations regarding selection of students, physical facilities, curriculum and other factors.

The Wyoming RCU was given the task of surveying the travel regulations governing vocational education divisions throughout the country. Forty-nine states and two territories replied to questionnaires, and the study was completed January 8, 1968.

One of the projects which the RCU funded was terminated before completion due to the resignation of the principal investigators. The project was entitled A Study of the Correlation Between the American College Test and The Iowa Silent Reading Test and the Effect of the Results on Remedial Students and was funded through Casper College.

Robert Wright of Laramie did a project entitled Are Wyoming's Secondary School Vocational Programs Geared to Wyoming Industries? Wright concluded in his study that Wyoming's secondary school vocational programs are not geared to Wyoming industries because Wyoming industries are unable to secure locally qualified people to fill job openings, and at the same time, the young people of the State are unable to find sufficient job opportunities in the state.

Fred Black, Jr., RCU graduate research assistant at the University of Wyoming, completed A Study on the Background of Selected Junior College Business Faculties in Selected States. The University of Wyoming planned to use the results of this study in preparing a curriculum for junior college business teachers.

A survey of all juniors and seniors in Wyoming high schools was made by the RCU in the Spring of 1968 to determine their occupational interests. Data from this survey were made available to guidance counselors, high schools, community colleges and persons interested in planning future programs for students.

Robert S. Wilmeth, RCU graduate research assistant at the University of Wyoming, did a research project entitled The Citizens' Advisory Committee. The purpose of this report was to present material which would enable educators to organize advisory committees that would benefit the needs of their particular communities.

Arthur W. Burrichter, graduate assistant at the University of Wyoming, completed a project entitled A Study of Public School Elementary Teacher and Administrator Attitudes Toward Continuing Education in Laramie and Albany Counties, Wyoming: An Experiment in Changing Adult Attitudes and Concepts. This study was conducted to determine the attitudes which elementary public school teachers and administrators held toward education as a continuing and life-long process, and to determine if adult attitudes can be isolated, tested, and changed to encompass new concepts.

A cost-benefit analysis of occupational education in Wyoming was begun by the RCU staff early in the RCU operation. However, due to staff turnover, work on this project was delayed. Fred Black, Jr., RCU graduate research assistant, has reactivated this project and it is in progress.

During the past two years the RCU was involved in two Adult Basic Education studies. The first study was initiated by Central Wyoming College with Gene Schrader, RCU Director from August, 1967, to August, 1968, as principal investigator. Two objectives of this study were 1) to determine the impact of ABE on those who participated in 12 or more sessions of instruction and 2) to determine attitudes of ABE participants toward course program, teachers, facilities, and several other aspects of the program. The second

ABE research project was a more comprehensive effort conducted in cooperation with the State ABE Director as an official evaluation of the program as required by statute. Bruce Perryman, current RCU Director, conducted this project, which is being prepared for dissemination.

The RCU worked for some time on the development of a Policies and Procedures manual for occupational education in Wyoming. Work on the final draft of this document has been postponed, pending new interpretations of the recently adopted 1968 Amendments.

The RCU provided technical assistance to two research projects recently completed. One was entitled A Study to Determine Reasons for Wyoming High School Graduates Attending Out-of-State Private Business Schools by Sharon Funkhouser. The second project is entitled A Study to Determine Needs of and Interest in Vocational Business and Office Education in Wyoming by Nancy Howe, and was recently published by the RCU.

The project entitled Regional Placement Service. Its Feasibility for Community-Junior College Vocational-Technical Students was done by Don Jeanroy, RCU graduate research assistant at the University of Wyoming. It was published in January, 1969.

One of the major efforts of the RCU was its participation in what has been called The Rock Springs Project. The study involved gathering information concerning aspirations and expectations of all students in grades 9-12 in Green River and Rock Springs. Parents of these students were also surveyed. The second phase of the study involved gathering information from business and industrial units in the Sweetwater County area. The involvement of the RCU in this effort was greater than might normally be expected because of the pilot nature of the project in Wyoming.

A similar survey was later done in Saratoga, Wyoming, on a much smaller scale. The final report is forthcoming on both of the projects.

The RCU published the report of a project done by Kenneth Row, distributive education teacher-educator at Eastern Wyoming College. The project was entitled Cost Analysis of High School Distributive Education Programs in Wyoming - 1967-68 School Year. The RCU provided assistance to the principal investigator in conducting the project.

Fred Black, Jr., graduate research assistant for the RCU, was the principal investigator of a study entitled Attitude Changes of Vocational Educators After Attending a Three-Week Workshop in Vocational-Technical Education Research. The study was done to determine the value of the 1968 workshop in changing the educators' outlook or attitudes toward research in occupational education.

The RCU staff has spent much time working with the Occupational Education Division toward the development of a Master Plan for Occupational Education in Wyoming. Such a plan was called for by the Governor's Committee on Vocational-Technical Education in its Progress Report to the Governor in June 1968.

In conjunction with the Governor's Committee, Don Nagel conducted a research project entitled Attitudes of Industry and Secondary School Administrators Toward Vocational-Technical Education in Wyoming. The need for occupational education seems apparent. There appears to be a paradox in the feeling that industry cannot find locally qualified help while at the same time our young people cannot find good jobs in Wyoming. However, most jobs require some special training, and the state's public schools are not providing sufficient educational opportunities for our young people to receive the required training. The problem seems to be a matter for preparation of employment.

Another project of the RCU staff has involved making projections of school enrollments by grade for the state of Wyoming. Two methods of projection were used to give a high and a low range.

Other projects recently completed are as follow:

1. "A Survey of Vocational-Technical Education Needs in Lovell, Wyoming" by Norman L. Opp;
2. "The Development of a Curriculum Guide for Industrial Arts Education in Wyoming Public Schools" proposal by Larry Erickson.

Four research projects funded by the RCU are still in progress. They are:

- "A Study to Determine the Mathematical Skills Needed in Selected Occupations in the World of Work" by Gene Schrader;
- "Reactions of Graduates to Business Education Programs in Big Horn Basin High Schools" by Mrs. Helen M. Stevens;
- "The Development of a Procedure for Continuous Evaluation of the Green River High School Business Education Program" by Barbara Arnold;
- "Establishing a Basis for the Schools of the State of Wyoming to Evaluate Their Drafting Program as Related to the Needs of Draftsmen in Industry" by Ivan Liechty.

#### Consultative Services

Both the Director and Assistant Director of the RCU served as active members of the Home Economics Advisory Committee for the Cheyenne School District #1. The committee was formed to provide guidelines for the food service occupations class in the two Cheyenne high schools. This program was a pilot project in Wyoming. The Assistant Director, Mrs. Pat Korp, wrote several articles concerning the program for the newspapers, as well as being secretary of the group.

The RCU Director is a professional consultant for the Cooperative Area Manpower Planning System Committee (CAMPs).

The RCU cooperated with the management consultant firm of Booz-Allen and Hamilton in conducting the total educational needs survey of Wyoming. The five needs of education in Wyoming, as determined by the survey, are:

Greater uniformity across the state in terms of the scope and quality of educational opportunities available to each student:

Better utilization of resources available for Wyoming public school education:

Increased continuity and cooperation with both post-high school education and the world of work:

Refined information system for maintaining statistical data on Wyoming public schools.

Development of a master plan to guide the future of public school education.

### Dissemination

The RCU has the complete output of the Educational Resources Information Center (ERIC) system, as well as all of the indexes to these materials. The RCU has access to a microfiche reader-printer, purchased by the State Department of Education, and has a microfiche reader. Because of the cost of the paper the RCU makes a charge of ten cents a page for all hardcopy made on the reader-printer. In an attempt to publicize the potential of ERIC, the RCU published a booklet entitled 'ERIC in Wyoming.' The monthly magazine of the State Department of Education, The Wyoming Educator, also featured an article on the ERIC system in the September, 1968 issue. To supplement the ERIC microfiche collection, the RCU also purchased the New York State Curriculum on microfiche.

All of the documents received from other states, as well as all documents pertaining to education published in the state of Wyoming, have been cataloged by the RCU. A bibliography of these materials was published in January of 1969. There have been three addendums published since then.

In December of 1967 the RCU published a brochure describing occupational education at the post-secondary level in Wyoming. The brochure listed all of the occupational courses taught at the community colleges in Wyoming.

Another brochure published by the RCU was for potential graduate research assistants at the University of Wyoming. It was distributed by Dr. James Zancanilla and Dr. Glenn Jensen at the University.

William H. Nightwine, former RCU Assistant Director, published a booklet entitled 'Program Evaluation Review Technique for Educational Research Project Development and Control. The purpose of the booklet was to inform Wyoming's educational community of the basic concepts and principles of a project management information system (PERT).

Abstracts of several completed research projects were published by the RCU. These include projects contracted through the RCU and also others done in the state, such as masters' theses, etc. Copies of the abstracts are disseminated to persons within the particular area of concern.

The RCU published a 'Handbook for Wyoming Distributive Education for the Director of Business and Distributive Education. The 152-page handbook was written by Charles Lein, a graduate student at the University of Wyoming and co-authored by Dr. James Zancanella, Chairman, Department of Occupational Education, College of Education, University of Wyoming, Laramie.

One of the major dissemination projects of the RCU was the publication of the Progress Report of the Governor's Committee on Vocational-Technical Education. The staff worked for several months with the chairman of the committee, the State Director of Vocational-Technical Education, and the State Superintendent of Public Instruction in preparing the final publication.

The RCU provided assistance to Charles Burke, Industrial Arts Specialist for the State Department of Education, in collecting information pertaining to industrial arts teacher education in other states. Mr. Burke was interested in providing relevant material to the University of Wyoming, so they might revise their teacher education program in the industrial arts area. The RCU also solicited information from each state relative to the total number of industrial arts programs at the elementary and junior high levels, the total number of teachers at these levels, and the number of these teachers who are female.

### Instruction

During the summer of 1967, the RCU conducted a two-week workshop in occupational education research at the University of Wyoming. Participants included 20 occupational educators, guidance counselors, and administrators selected by the RCU staff. College credit was given to those who completed the course, and a stipend was also paid. A similar workshop was held during the summer of 1968, with the time being extended to three weeks. Several research projects resulting from the two workshops were eventually funded by the RCU.

The RCU staff members were asked on several occasions to serve as speakers at meetings and workshops. Mrs. Korp spoke on public and office relations at a meeting of Public Health Nurses and their secretaries. Mr. Schrader and Mr. Perryman often spoke to research and vocational classes at the University of Wyoming. Mr. Perryman and Mrs. Korp served as judges for Student of the Year at the State Distributive Education Clubs of America meeting. There were many meetings in which the RCU staff participated.

Research Proposals Received by the Wyoming Research Coordinating Unit since June, 1966 and Action Taken

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
Are Wyoming's Secondary School Vocational Programs geared to Wyoming Industries?" by Fred Black	\$ 989.50	Funded	Completed
A Study of Public School Elementary Teacher and Administrator Attitudes Toward Continuing Education in Laramie and Albany Counties, Wyoming: An Experiment in Changing Adult Attitudes and Concepts" by Arthur W. Burrichter	930.00	Funded	Completed
Determination of Reasons for Practical Nursing Students Discontinuing Their Training at the Laramie MDTA Vocational School of Practical Nursing" by Robert Foree	996.00	Funded	Completed
Selected Techniques for Formulating the Questionnaire, Mechanics and Related Materials of a Follow-Up Procedure Dealing With Post-Secondary Vocational-Technical Graduates" by Maurice L. Goff	4,000.00	Funded	Completed
Fremont County Survey of Vocational-Technical Education Needs in Business and Industry" by Central Wyoming College	1,500.00	Funded	Completed
Occupational Needs of the Socio-Economic Disadvantaged, and Other Handicapped Youth of Laramie County School District Number 1, Phase One by Dr. Wilma Hirst	5,000.00	Funded	Completed
Workshop in Research in Vocational Technical Education at University of Wyoming"	1967 - 5,600.00 1968 - 7,500.00	Funded Funded	Completed Completed
A Survey of Vocational-Technical Education Needs in Goshen County" by Larry Dodge	2,865.00	Funded	Completed
A Study to Determine the Skills and Training Needed for Distributive Occupations in Wyoming by James Deaver	-----	Not Funded	--

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
"A Study of the Needs and Desirability of an Adult Homemaking Program in Crook County, Wyoming" by Nancy Hower	\$ 134.00	Not Funded	--
"A Survey to Determine if There is Enough Interest and Desire to Offer a High School Course in Basic Aeronautics" by Patrick J. Freiberg	440.00	Not Funded	--
"A Feasibility and Program Determination Study of the Schools of Carbon County to Determine the Necessity for, Desirability of, and Best Program for an Area Vocational School to be Located in School District #3, Carbon County, Pawlins, Wyoming" by Albert Schultz	2,485.92	Not Funded	--
"A Study to Determine Functional Vocational Areas that Resident Indians Can Exercise Within the Wind River Reservation" by Robert T. Nash	721.28	Not Funded	--
"A Feasibility Study to Determine the Incorporation of Related Areas into the Agriculture Curriculum to Prepare Students for Work in OFF-FARM Occupations" by A. L. Albert	2,132.14	Not Funded	--
"A Study to Determine the Feasibility of the Installation of Data Processing Equipment in the Powell Public Schools in Powell, Wyoming" by Margaret Olson	-----	Not Funded	--
"A Study to Determine if the Curriculum of Evanston Senior High School Meets the Needs of the Graduates for the Past Five Years in Their Present Employment" by Harry W. Magee	665.00	Not Funded	--
"A Study of the Effectiveness of Adult Education Classes in Securing Employment After Completing Courses" by Richard D. Clabaugh	1,032.50	Not Funded	--
"A Proposal to Study the Feasibility of Starting a Program in Vocational Adult Education in the Area of Farm and Ranch Management for the Farmers of the Powell Community" by R. R. Robertson	3,227.00	Not Funded	--

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
"A Survey of Per Pupil Costs for Vocational Education Classes in School District #6, Park County, Wyoming" by Glen V. Mangus	\$ 324.00	Not Funded	--
A Survey of Dropouts in Campbell County High School by Robert Tolson	228.80	Not Funded	--
An Investigation and Feasibility Study With Prospects of Developing a Food Service Training Program at the High School Level in Washakie County" by Dorothy L. Hoesel	200.00	Not Funded	--
"An Investigation of the Needs and Interests of Lovell High School Girls in Order to Change the Home Economics Curriculum" by Jane Miller	-----	Not Funded	--
"A Feasibility Study to Determine if a Workshop in Vocational Agriculture Will Assist in Orienting New Teachers to the State Program of Works" by Robert G. Bramlet	2,007.00	Not Funded	--
"Why Are Wyoming Youth Attending Post-Secondary Vocational Schools Out of the State of Wyoming?" by Charles Nixon	-----	Not Funded	--
"Adult Basic Education Teacher Aide Training Program" by William D. Stark	-----	Not Funded	--
"Curriculum Workshop for Industrial and Vocational Teachers" by Robert Wilmeth	7,500.00	Not Funded	--
"A Study to Determine the Desirability and Feasibility of Introducing Adults to the Concepts of Adult Learning Through the Medium of the Planetarium Projector" by George L. Downing	-----	Not Funded	--
"Would a Program of Recertification for Summer Experience in Industry Benefit Wyoming's Vocational Teachers and Youth?" by Robert D. Wright	-----	Not Funded	--
A Study of Adults in Selected Wyoming Communities Who Have Discontinued Participation in Organized Adult Education Programs with Recommendations for Program Improvement" by Kenneth Gross	-----	Not Funded	--

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
"A Study of the Feasibility of Organizing a Regional Placement Service for Graduates of Public Post-Secondary Vocational-Technical Education Programs" by Charles D. Lein	\$ -----	Funded	Completed
"A Study of the Impact of the Vocational Education Act of 1963 Upon the Secondary High School Vocational Programs in the State of Wyoming" by Patricia A. Willson	572.30	Not Funded	--
The Effect of Varied Speed and Accuracy Training Upon a Gross Motor Skill" by Keith W. McCoy	998.50	Not Funded	--
"A Presentation of Evidence That There Exists in Wyoming a Group of Young Adults Who Would Be Better Served by Terminal Vocational Programs than by Presently Existing Programs" by Agnes Kennington	932.00	Not Funded	--
"A Study to Determine the Role of the Guidance Counselor and the Guidance Program in the Selection of a Vocational Career for High School Students in Wyoming" by Robert L. Lopez	939.00	Not Funded	--
New Ideas and Techniques for Promoting Adult Education in Wyoming by Gary L. Lawrence	1,000.00	Not Funded	--
"A Study to Determine What Courses Should be Developed in Meeting the Occupational Needs for Youth and Adults for Business and Industry in the Big Horn Basin of Wyoming" by Albert Suvak	2,713.50	Not Funded	--
Occupational Needs of the Socio-Economic, Disadvantaged and Other Handicapped Youth of Laramie County School District #1, Phase Two" by Dr. Wilma E. Hirst	5,000.00	Not Funded	--
"A Study of and Proposed Improvements for the Adult Education Programs Being Offered to Older Citizens in Selected Wyoming Communities" by Orin D. Grover	980.00	Not Funded	--

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
"A Project to Evaluate the Effect of Elementary School Teachers Participating in a Sensitivity Group Experience Both on the Teachers and on the Students Whom They Teach"	\$8,344.42	Not Funded	--
"A Study to Determine the Mathematical Skills Needed in Selected Occupations in the World of Work" by Gene Schrader	4 695.00	Funded	On-Going
"Reactions of Graduates to Business Education Programs in Big Horn Basin High Schools" by Mrs. Helen M. Stevens	1,435.25	Funded	On-Going
"A Survey of Vocational-Technical Education Needs of Lovell, Wyoming by Norman L. Opp	1,134.00	Funded	Completed
"The Development of a Procedure for Continuous Evaluation of the Green River High School Business Education Program by Barbara Arnold	1,081.00	Funded	On-Going
"Media-Approach: An Instrument for Orienting Potential Employers to the Cooperative Education Program" by Frank Sanders	860.00	Not Funded	--
"A Suggested Vocational Education Program for the Small High Schools of Wyoming by Mrs. Helen Smith	775.00	Not Funded	--
"A Comparison of Attitudes and Vocational Interests of Junior College Students Discontinuing College and Those Who Complete Two Years" by Eldon Bergstrom	1,590.00	Not Funded	--
"A Comparative Evaluation of Distributive Education Students to Determine the Value of DECA Club Activities in Distributive Education Programs" by Danny E. Myers	330.00	Not Funded	--
"A Proposal for the Study of Vocational Classes in Ten Sleep, Wyoming" by Charles K. Ronning	630.00	Not Funded	--

<u>Proposal</u>	<u>Funds Requested</u>	<u>Action</u>	<u>Current Status</u>
"Establishing a Basis for the Schools of The State of Wyoming to Evaluate Their Drafting Program as Related to the Needs of Draftsmen in Industry" by Ivan J. Liechty	\$1,280.00	Funded	On-Going
"Development of A Curriculum Guide for Industrial Arts Education in Wyoming Public Schools" by Larry Erickson	1,472.00	Funded	Completed
A Presentation of Evidence that the Inclusion of Vocational Agriculture as a Course Offering in the Encampment High School is Valuable to Students in Helping Them to Choose a Vocation and also Making a Success in That Vocation" by Ike A. Tolley	1,210.00	Not Funded	--
Vocational and Related Instruction to Retain and Reclaim Unsuccessful Students by Bob Bush and Ernie Sones	6,000.00	Funded	On-Going
A Follow-Up Study of Wyoming Public Secondary School Distributive Education Graduates for the Period 1951-1967"	3,700.00	Pending	
A Pilot Project in Home Economics Educating Personnel for Wage Earning/Gainful Employment"	?	Pending	

## ACCOMPLISHMENTS RELATED TO THE WYOMING RCU OBJECTIVES

### A. Collect and Disseminate Information

Occupational surveys of business and industry in two regional geographic areas were undertaken and completed.

The Wyoming RCU staff in cooperation with personnel from the Wyoming Employment Security Commission summarized data collected through manpower need surveys for Part II of the Wyoming State Plan for Occupational Education.

Abstracts of research conducted at the University of Wyoming were prepared by research assistants.

A file of research projects in occupational education in Wyoming has been developed. A bibliography and supplements of occupational education research projects were prepared and distributed.

The Wyoming RCU staff has continually enlarged and organized a file of occupational education reference materials. Substantial quantities of curriculum materials, general references, and research reports are on file in the Wyoming RCU office. The Wyoming RCU distributed a variety of articles, reports, and abstracts to individuals and groups. Distribution lists are available on request.

A plan to incorporate RCU materials into the Department of Public Instruction Media Center is being considered. This appears to be a natural evolution in order to bring about better organization, more space, and librarian assistance. The aim is greater utilization of the materials which have been acquired by the Wyoming RCU.

The Wyoming RCU retains a file of ERIC publications and contributes research reports to the V-T ERIC Clearinghouse located at The Ohio State University. Unit publications are also forwarded to the V-T Center at the University of Wisconsin. The RCU serves as a funneling point for occupational research reports for further dissemination.

### B. Stimulate and Encourage Research

A great deal of time and effort was devoted to grouping forces and exploring ways and means of conducting occupational research, i.e., the Governor's Committee on Vocational Education, the State Research Council, CAMPS, WYTAP, and others. The overriding intent of those entities, perhaps, alluded to coordinating activities in the process of collecting and disseminating information relative to human resources, employment opportunities, and occupational education in Wyoming. Wyoming RCU participation was evident in most all of the above efforts.

The Wyoming RCU staff prepared articles and published brochures to promote RCU activities.

Members of the Wyoming RCU participated in conferences and seminars to orient graduate students and occupational personnel relative to the RCU, its purposes, and research.

Wyoming RCU staff held discussions with individuals who were interested in conducting research as to the preparation of proposals, problems to be researched, and in the conduct of the studies once the projects were underway.

As part of initial Wyoming RCU organization, the RCU began a co-operative graduate assistantship program with the University of Wyoming.

#### C. Identify Potential Research Problems

Wyoming RCU personnel worked with members of a number of organizations to promote and assist with occupational surveys.

Efforts were made to ascertain the problem areas to be researched. A research foundation base was established initially by seeking out what had already been accomplished. Teachers throughout the state were surveyed as to problem areas. Research workshop participants addressed the problem of "What Needs Research?" The State Advisory Council, CAMPS, WYTAP, and members of the State Department of Education staff evidenced much interest in identifying 'action' research problems. Guidelines and forms were developed for the preparation of research proposals.

Contacts were made with local school districts to discuss their problems and research activities, particularly need surveys. Much work remains to be done in working with secondary and post-secondary school personnel.

Wyoming RCU personnel served as consultants on numerous projects, including a major ESFA Title III project to determine public elementary and secondary school education needs.

#### D. Establish and Maintain Working Relationships

Contacts were made with numerous institutions, agencies, associations, and establishments during the period. The purposes of these contacts were to give information about the RCU and its functions, to collect information for use in the development of a contact and research foundation list, and to lay the groundwork for cooperative effort on projects of mutual concern, e.g., educational programs and research.

RCU personnel have been involved in CAMPS activities from its beginning.

The Wyoming RCU staff compiled and prepared Parts II and III of the Wyoming State Plan for Occupational Education. This effort was accomplished through the coordinative efforts of Wyoming RCU staff and the cooperation of the following agencies in providing information for these parts of the plan:

Wyoming Employment Security Commission  
U.S. Department of Commerce  
State Department of Education  
U.S. Bureau of Census  
Wyoming Dept. of Labor and Statistics  
Bureau of Economics Research, University of Wyoming  
Division of Vocational Rehabilitation and Services

Wyoming RCU personnel attended and participated in a number of local, regional, and national conferences and seminars. These contacts have led to a more personal interchange of ideas and materials with individuals in Wyoming and outside the state.

Cooperative relationships also have been enhanced by participation on various committees.

#### E. Provide Support for Line Personnel

The philosophy of the RCU staff has been such that its activities have logically contributed to this objective as well as to others. During the period, considerable time and effort were devoted to activities which contributed to the accomplishment of this objective.

Articles, reports, and abstracts were screened and distributed to program personnel of the Occupational Education Division for the purposes of keeping them informed and providing them with some assistance.

Members of the RCU actively participated in committee work which involved representatives of various institutions, agencies and organizations as well as Department of Public Instruction staff. This activity was concerned with such things as: research, interagency relations, area school standards and guidelines, evaluation and the study of public school education in Wyoming.

Members of the RCU staff were called upon to serve on committees within the Department of Public Instruction concerned with such subjects as media center, in-department relationships, policy and procedures manuals, and evaluation teams. In addition, the staff worked with program personnel of the Occupational Education Division to formulate policy for further consideration by the Division and the Department of Public Instruction administration.

During contacts with institutions, agencies, associations and establishments, as noted above, the need for education programs was brought to light and referrals were made to the Occupational Education Division program personnel for implementation.

Upon requests of administrative personnel in the Department of Public Instruction, RCU personnel prepared material for a variety of publications. Among these assignments were:

Annual Occupational Education Division Projected Plan of Activities  
Wyoming State Plan for Occupational Education

Area school standards/study  
State CAMPS Plans for Fiscal Years 1969 and 1970  
Policy Statement for Occupational Education - Progress  
Report of the Governor's Committee on Vocational-Technical Education  
U.S. Office of Education Annual Descriptive Report  
Statistical Reports

During the period, requests for information about occupational education in the state were received by the RCU, either directly or by referral, and were answered.

#### F. Assist in Programs, Facilities, and Staff Development

Curriculum and course outlines and related materials were collected for use in the development of educational programs.

As a basis for establishing and justifying the establishment of occupational education programs in several Wyoming schools, the RCU staff was instrumental in stimulating school personnel to undertake geographic area manpower needs and occupational education need surveys to ascertain employment opportunities and education needs. The staff cooperated with program personnel of the Occupational Education Division and outside groups to undertake various need studies. In addition, the staff gathered, analyzed, and disseminated information pertaining to employment opportunities and occupational education needs in the state.

A member of the RCU staff assisted in the preparation of an instrument which was employed in two regional geographic need determination studies.

The RCU staff in cooperation with members of the Occupational Education Division, school personnel, and teacher education personnel provided consultation on research to ascertain professional problems of occupational education teachers in the schools of Wyoming, with implications for in-service teacher education.

#### G. Assist in Program Evaluation

At various times during the period the RCU staff was called upon to gather and summarize data relative to occupational education programs and enrollments in the schools of the state.

The Unit staff was called upon to coordinate activities in the revision of an instrument for the evaluation of vocational education programs in the secondary schools of Wyoming. A member of the staff participated in team visits to public schools in the state.

The RCU staff developed the instruments and the organization for a statewide follow-up of high school seniors in Wyoming.

The Unit staff responded to a research study questionnaire pertaining to an evaluation of RCU's in the United States which was conducted by Oregon State University.

In order to improve the procedure for the funding of research projects the Unit staff developed a set of guidelines for preparing proposals and a form for submitting a final report for the projects.

In accordance with procedures for the operation of an RCU, quarterly progress reports and reimbursement requests were submitted to Washington. During the period, a proposal for the establishment and amendment of the RCU was submitted to Washington.

#### H. Promote Occupational Education

Brochures pertaining to RCU activities and occupational education were prepared and distributed.

As participants at conferences, seminars, and meetings, RCU personnel presented information such as the functions of the RCU, and research pertaining to occupational education.

Whenever RCU personnel made contact with representatives of agencies, institutions, associations, and establishments, the staff promoted up-to-date concepts of occupational education.

Articles were prepared and submitted for publication in newspapers and professional journals.

Members of the RCU staff participated in and prepared materials for various committees.

#### I. Cooperate with Other States

Progress reports, research summaries, and bibliographies were distributed to other RCU's in the United States. Several state RCU's reciprocated to mutual advantage.

Whenever requests for information were received by the RCU, directly or by referral, efforts were made to provide as complete responses as practical in terms of the desired information and its availability.

Attendance at regional and national meetings provided opportunities to share ideas and materials on both a formal and an informal basis. Western Region States RCU's cooperated in sharing ideas relative to mutual problems, and interchanging ideas and materials.

The Wyoming RCU cooperated with the following centers:

The Center for Vocational and Technical Education,  
Vocational and Technical Education ERIC Clearinghouse,  
The Ohio State University, Columbus, Ohio

The Center for Studies in Vocational and Technical Education,  
University of Wisconsin, Madison, Wisconsin

### **Relationship of RCU Activities to Objectives**

In the foregoing, emphasis has been given to highlighting those activities which have contributed to the accomplishment of the Unit objectives. This portion of the report is concerned with a summary of relationships between RCU activities and objectives.

While these activity statements do not reflect every detail of staff involvement, they do reflect the work of the staff in terms of a practical and manageable list which, for all intents and purposes, is inclusive. These activities were then related to the objectives to which they contributed.

## Primary Accomplishments

During the 38 month period of initial Wyoming RCU operation, several areas of activity appear as rather substantial accomplishments of the staff during the period. The following are summary statements of these accomplishments.

### A. Coordination of Occupational Research in Areas of Major Problems

Since June, 1966 numerous institutions (University of Wyoming, community colleges, and public secondary schools) and individuals have submitted proposals that resulted in 20 funded and RCU supported research projects. More than three-fourths of these projects have been completed and results disseminated. (See pages 20 - 25 for proposals received and action taken.)

### B. Development of a Central Location of Occupational Research Information Involving Collection and Dissemination of Materials

Information storage and retrieval of ERIC, state and other materials has been a continuous process. A large quantity of research reports and abstracts and specific and general reference materials which are related to occupational education have been collected and filed in the RCU office for use by anyone in need of information. Emphasis has been given to providing research abstract and bibliographic services.

### C. Consultation Services

Consultation services have been provided the members of the Department of Public Instruction, particularly the Occupational Education Division, and many of the educational institutions throughout the state: statistical information, research proposals, and various publications are the products. In addition, consultation services were provided to graduate students relative to research proposals and projects.

### D. The Wyoming RCU has been accepted as the service-oriented research segment of the Occupational Education Division and as a group to be actively engaged in the planning activity of the Division.

The Unit staff was instrumental in stimulating individuals and groups to undertake geographic area, state and local, need surveys to ascertain employment opportunities and education needs which have provided a base for establishing and justifying the establishment and planning of occupational education programs in several Wyoming schools. The Wyoming RCU coordinated the preparation of Parts II and III of the Wyoming State Plan for Occupational Education.

### E. Participation on Departmental and Interagency Committees

Members of the Unit staff have been provided opportunities to represent the Occupational Education Division and the Department of Public Instruction on departmental and interagency committees. Through these contacts, it appears that representatives of cooperating groups and agencies

are gaining greater insight and confidence in what RCU personnel can and will do. Examples of these working relationships are participation in the CAMPS program, WYTAP, State Research Council, and the Food Service Advisory Council for School District #1, Cheyenne.

#### F. Establishment of Graduate Research Assistantship

The Occupational Education Division and the Wyoming RCU, in cooperation with the University of Wyoming, initiated and operated a cooperative graduate assistantship program to provide research training to graduate students working on advanced degrees.

#### G. Involvement in Educational Programs, Staff, and Facilities Evaluation

Members of the RCU participated in the development of instruments for the evaluation of occupational education at the secondary level and in some visitations pertaining to the same. The staff was also active in outlining details of a statewide plan for comprehensive educational area service centers. Information related to specific occupational education programs, staff, and facilities evaluation was supplied and coordinated through the RCU for use in a study conducted by a Title III E.S.F.A. supported research team.

### IV. CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

The establishment of a Research Coordinating Unit in the Wyoming State Department of Education has proved to be an important support to expansion efforts in occupational education. In conjunction with the development of the RCU's capabilities, the occupational education program staff of the Department of Education recognizes need for additional information for planning purposes.

Local school districts are not using the resources developed by the RCU to the extent possible. Little use of RCU resources has been noted in terms of schools planning course offerings or improving ongoing programs. The RCU has developed interstate contacts which give the Department of Education and most school districts current information on innovative projects and research being conducted throughout the nation.

The Research Coordinating Unit was established as a prototype research unit within the Wyoming State Department of Public Instruction to form the nucleus around which a permanent research unit would be established. To fulfill this overall objective the Research Coordinating Unit has accomplished the following:

1. Initiated research for occupational education funded under Section 4(c) of the Vocational Education Act of 1963.

2. Developed a research information retrieval and dissemination system.
3. Established a research consulting service for local schools and supervisors of the Department of Public Instruction.
4. Conducted research projects designed to strengthen "base-line" data for occupational planning.

Basic planning data for occupational education planning developed by the Research Coordinating Unit has been supplemented by "in-house" projects to fill specific informational gaps. To supplement research funds, the RCU has developed contacts with public and private organizations outside normal educational channels for research monies. The RCU hopes to provide the research resources necessary to support occupational planning and evaluation.

"In-house" research has been carried out primarily to compliment efforts to expand occupational education in Wyoming and insure that planning is accomplished in accordance with the projected labor demands of industry as well as in the best interests of the students.

The activities and accomplishments of the Wyoming RCU during the first 38 months of its existence have been reviewed. It is evident that some progress has been made toward all of the purposes and objectives stated in the original proposal which was funded by the U.S.O.E. This period of 38 months was, however, mainly a period of establishment and exploration. No one was certain at the beginning what role the Unit should play and what might be accomplished in the research field. On the other hand, the purposes and objectives stated in the original proposal have proven to be useful guides, and will serve a similar function as the Unit enters the new operational period of state administration. Thus, no major changes are foreseen for the Unit with the exception of becoming directly involved with the administration of exemplary programs. A few changes in emphasis do seem in order, however, and some of these are presented and discussed below.

One change in emphasis which may be expected is that the Unit will tend to reverse the earlier policy of engaging directly in research activities. Direct involvement in research activities seemed appropriate and necessary when the Unit was first organized. For the future, it seems that more emphasis should be placed on the major objectives of coordinating research, stimulating new research, and providing consulting services.

It is obvious that the Unit can conduct only a small fraction of the research studies needed. The only apparent solution, therefore, is to involve other research personnel in the state to the maximum extent possible. The Unit will continue to conduct research, as ongoing projects are necessary to train occupational researchers and graduate assistants who may be assigned to the Unit. Extensive field surveys and similar projects

which are removed geographically from the State Department of Education will be curtailed and eventually eliminated.

Another change in emphasis will be an attempt to bring about a critical evaluation of research efforts which have been underway in recent months. The main issue seems to be whether some of the research efforts detailed earlier in this report can be judged adequate, or if the occupational education program in Wyoming requires an increase in this area. As noted earlier in this report, the Unit has had relatively little success in stimulating new research activities. The Unit staff believes that far more research emphasis is needed, and that the only way to realize an increase in research efforts is to employ the necessary research personnel. Occupational Education program offerings have been increased in the state in recent months, thus requiring the employment of additional instructional personnel. It may be more appropriate in the future to use available funds to hire research directors before further expansions are made in program offerings.

A third change, already in progress, is concerned with the Unit's role in the ongoing program of the College of Education at the University of Wyoming. The Unit, if it is to continue its cooperation with the College of Education, should relate and contribute to the College's major programs of research and teacher education. The entire program of the Unit should be enhanced if some graduate students within the College of Education undertake thesis research projects in the occupational education area. The need for research personnel noted in the preceding paragraph perhaps can be met most effectively by encouraging certain able students to do research in this area of education which can be continued and expanded after their formal education is complete.

A large portion of the time and effort of the RCU staff has been expended to provide support for the program personnel of the Occupational Education Division. Because of its relationship in the Division, the staff has devoted a substantial portion of its energies to activities of an administrative support nature thus reducing time and effort devoted to research coordination as such. However, in this situation, the Unit has achieved recognition as a group to be actively engaged in the planning activity of the Division.

There is an apparent lack of communication between the RCU and the U. S. O. E.

The RCU operations have been curtailed due to funding limitations and/or uncertainties.

Incorporating the Wyoming RCU into the Wyoming Department of Education and particularly the Occupational Education Division was an effective way of improving and extending occupational education programs.

The accomplishments of the RCU so far seem to have justified all of the funds expended. As the needs for service by the RCU are increasing, it is certain that the Wyoming RCU will play an important role in the future development of occupational education in the state.

The Wyoming RCU has been facing a number of problems, among which the following are the more important ones.

- Difficulty in data acquisition
- Need of more qualified personnel
- Need of adequate space
- Need of appropriate funds to meet research needs
- Need for greater communication with U.S.O.E.
- Need for a more thorough understanding of ERIC services and resources
- Need for a more thorough understanding of the Center services and resources (i.e., Ohio State and North Carolina State)
- Need for more communication at the local level as it might relate to research
- Need for long range operational and program planning is apparent.

It is felt that the crucial one of all the problems is the lack of funds to meet the increasing needs of RCU services in the state. When and if the authorized funding of the Vocational Education Amendments of 1968 can be fully appropriated, the difficulties in rendering RCU service may be reduced.

If one were to visualize the future potential of occupational education in the state, one would believe that the function and services of the RCU must be kept flexible and dynamic in order to cope with the changing nature of the environmental structure increases, better cooperation and coordination, within the state and interstate, will insure the success of the RCU services.

#### Recommendations

High priority should be given to the continuation of the Wyoming RCU to facilitate the provision of services in research, planning, and development for Occupational Education Division personnel to meet the needs of individuals in accordance with P.L. 90-576.

There is a definite need in Wyoming to conduct a continuous statewide follow-up study of all Wyoming secondary education program graduates as well as statewide manpower need studies on a continuing basis to assist in ascertaining and justifying the need for occupational programs in schools throughout the state.

More emphasis must be given to funding of research projects which relate to critical areas other than manpower need studies.

Continuation of the graduate research assistantships at the University of Wyoming on an expanded and more pronounced directed basis would be a definite asset of mutual value to the student and to the Occupational Education Division and the RCU.

Continued emphasis should be given to incorporating research reports and abstracts and specific and general reference materials which are related to occupational education in the State Department of Education media center.

Continued emphasis must be placed on more closely aligning action research with current problems which must be solved.

More time and effort should be devoted to point out, to motivate, and to coordinate currently needed research within and between associations, business and industry, communities, educational institutions, and public agencies and to disseminate and share information to a greater extent with these groups. To accomplish this will require the employment of additional personnel on the RCU staff.

A statewide system of contacts in the secondary and post secondary institutions in Wyoming should be established to provide a network for coordinating research and collection and dissemination of research findings in the State.

Further clarification should be made of what local school, state department of education, and higher education personnel can contribute or the functions which they can most effectively perform in a constructive research program in occupational education in the State of Wyoming.

Findings of the RCU investigations of occupational education needs indicate that a stronger occupational guidance program should be initiated to compliment occupational data gathered by local school districts. Efforts in occupational guidance should include more emphasis on placement activities and a stronger follow-up program of school graduates for evaluation purposes. Research efforts should be pointed toward specific problems of worker shortages and student interest in combination with a strong general education program. Personnel on a state supervisory level should insist on cost-benefit analysis studies to supplement information on occupational shortages prior to instituting new programs. Efforts should be made to incorporate research conducted for "general" education with research findings in occupational education to compliment the total educational effort.

Funds should be made available to provide for an RCU staff which is adequate to accomplish the objectives established by the RCU. When funds for staffing the RCU are deemed inadequate to meet the objectives, the basis of operation of the Unit should be reduced to a manageable economic basis. The U.S.O.E. must make clear to the RCU in Wyoming specifically and exactly what funds are available for RCU operation during the coming funding period.

The Wyoming RCU should give attention to employing personnel with public relations or editorial experience for developing meaningful public information and publications materials.

New and improved channels of dissemination of information and materials need to be developed to replace the simple "mailing list" approach now being used almost exclusively as the only method of disseminating research information in occupational education.

The Wyoming RCU needs to give greater attention to identifying issues, problems, and needs in occupational education research at the local level, including provision for making available research information, microfiche

readers, hard copy printers and other facilities and equipment which will improve the usability of materials presently stored in inaccessible and unused resource libraries.

The Wyoming RCU needs to become more involved in occupational teacher education at the University of Wyoming.

Policy regarding involvement and support of graduate assistants in RCU operation should be clarified.

Objectives for the Wyoming RCU should be stated in behavioral terms.

A commitment to the research and development function should be institutionalized into the operations of the Wyoming State Department of Education. State monies should be budgeted to the R & D function at a sufficient level to continue program innovation regardless of the federal research funds allocated to the State.

Wyoming should continue the development of a multi-level technical information center/system equipped with access to national document collections and research tools. This center should be designated to respond to requests for data on school systems by local educational agency administrators. The technical information system should be linked with those individuals in school systems who have primary responsibility for curriculum innovation and improved teaching practices.

Basic research in occupational education should be funded primarily at the national and regional levels.

Development of curriculum materials and teaching aids based on research results should be funded at the national and regional levels.

## **APPENDIX**

## APPENDIX A

### WYOMING RESEARCH COORDINATING UNIT

#### OPERATIONAL POLICIES FOR THE WYOMING VOCATIONAL EDUCATION RESEARCH COORDINATING UNIT

Purpose of the Wyoming Vocational Education Research Coordinating Unit is to stimulate vocational education research, training, and experimental, demonstration and pilot programs; coordinate these activities; and disseminate results to the various educational agencies engaged in occupational education and training.

#### Activities:

1. Stimulate and encourage occupational education research and developmental activities in the State Department, local school districts, colleges and universities, and other appropriate agencies and organizations.
2. Coordinate occupational research activities conducted within the State with the agencies listed above and further coordinate such research activities with those being conducted outside the State.
3. Disseminate information on the results and application of occupational education research.
4. Stimulate activities which will result in increased interest and improved competence in research such as encouraging pre-service and in-service training of occupational researchers.
5. Participate in the review, monitoring or conduct as appropriate for occupational research and development projects supported by Federal, State, local, or private organization funds.
6. Identify and maintain an inventory of available occupational research and development resources in light of anticipated needs and programs within Wyoming.

7. Cooperate with the Wyoming Employment Security Commission in the dissemination of available data on employment opportunities, emerging occupational trends, and future job projections as a basis for planning vocational programs, curricula, and facilities within the State.
8. Provide consultative services to educational agencies and State Department personnel relative to the design and conduct of vocational education research.
9. Identify issues and problems relating to the nature and place of vocational education in the Wyoming school system and determine the contributions which occupational research and development can make in resolving them.
10. Assist in the development of a continuous program of evaluation of vocational-technical education in Wyoming.

Staff Relationships:

The Research Coordinating Unit is housed in the Vocational-Technical Education Division of the Wyoming Department of Education.

Administratively the RCU is responsible to the State Director for Vocational Education, Division of Vocational Education. The unit director has the title, 'Vocational Education Research Director'. Assistants have the title, 'Vocational Education Research Assistant Director' and 'R & D Assistant or Intern'.

Functionally, the RCU operates under established policies of the State Personnel Commission and the Department Policy Guide which specify personnel policies and procedures. Travel regulations and all other State and Federal policies, regulations, and the procedures governing Services and personnel of the Division apply to the Unit.

The Unit exercises a staff function and as such provides assistance to all Services of the Vocational Education Division relative to vocational education research. This includes stimulation of research and developmental activities by the various Services and rendering service to them on project design, instrument preparation, and project proposal writing; advising on data collection, analysis, and summarization; and promoting demonstration and pilot programs in vocational-technical education to further try-out findings from research and to encourage adoption of worthwhile innovations.

The functional relationship of the RCU to the State Department of Education's Research and Statistics Division is one of equal horizontal organizational structure. There is no conflict of interest and a definite purpose is served by each. One primary purpose of the RCU is to supplement the services offered by the State Department of Education. The broad area of educational research is of sufficient degree, particularly in Wyoming, to warrant concern by at least both of these research oriented agencies.

However, it is quite justifiable in view of staffing and monetary aspects, as well as areas of concern, that both research entities function. Whereas the Division of Research and Statistics is concerned with the total, broad field of educational research and has limited staff and funds available to devote any specific amount of time to any one area, the RCU is concerned primarily with the development and stimulation of research in Vocational-Technical Education - a field of endeavor virtually non-existent in Wyoming for years gone by. The function of the RCU is one of coordination of research and not one of conducting research as such. Therefore, the existence of the RCU is definitely justifiable. The purposes of each of these entities (the RCU and the Division of Research and Statistics) are quite different, functional, complementary and very vital to the educational progress and environment of the State of Wyoming. Another pertinent fact of this relationship is that of the actual conduct of research by both agencies. Whereas the Division of Research and Statistics regards educational research as one of their functions and as such conducts this research effort at the state level, the RCU functions on the basis that vocational education research should be stimulated and conducted at the local level.

Advisory Committee:

The RCU will hopefully utilize an advisory committee for advice on such overall matters as policy regarding use of State funds for vocational research, identification of vocational-technical research and training needs, experimental, demonstrational, and pilot programs that should be stimulated and other pertinent activities concerning operation of the Unit. Members are (or should be) appointed by the State Superintendent of Public Instruction for a term of one year.

Relationships to Local Education Agencies:

A major function of the RCU is its service to local educational agencies. It will endeavor to provide the following stimulatory and coordinative services for vocational-technical education programs:

1. Aid in identifying needs for research and developmental activities utilizing the advice of research and program specialists.
2. Provide information on the sources of funds for research and development projects.
3. Disseminate available data on employment opportunities, trends, and projections.
4. Maintain an inventory of occupational research and disseminate findings.
5. Provide help in project design, instrument preparation and clearing with the U. S. Budget Office proposal writing, and give advice on collection, analysis, and summarization of data.

6. Provide a review panel for consideration of project proposals and assist with letters of endorsement and approval.
7. Assist in establishment of demonstrational and pilot programs of vocational-technical education.
8. Conduct conferences and workshops to provide training in research competency.
9. Assist in evaluation of local programs of vocational education and provide consultant help requested.

Approved by:

/s/ Charles A. Kline  
State Director of Vocational Education

1/20/67  
Date

## APPENDIX B

### WYOMING RCU PROPOSAL OBJECTIVES AND ACTIVITIES

A statement of objectives and examples of activities for which the Unit provides statewide leadership and/or research coordination follows:

1. To stimulate and encourage research on employment opportunities, human resources, and educational programs.
  - a. Develop and maintain a file of research personnel in Wyoming.
  - b. Encourage pre-service and in-service training of research personnel.
  - c. Encourage and participate in seminars for graduate students who are interested in research.
  - d. Provide consultative assistance to individuals who wish to develop proposals for research, training, experimental, developmental, or pilot projects which may be supported by federal, state, local or private organization funds.
  - e. Develop and publish brochures and articles which relate to Research Coordinating Unit activities.
2. To collect and disseminate information on employment opportunities, human resources, and educational programs.
  - a. Develop techniques and procedures for the collection, classification, summarization or tabulation, storage, retrieval, and dissemination of information on employment opportunities, human resources, and training.
  - b. Maintain a directory of manufacturing and non-manufacturing agencies, institutions and organizations.
  - c. Conduct a continuous inventory of available data and research on employment, human resources, and training from cooperating institutions, agencies, and organizations.
  - d. Disseminate summaries of completed research.
3. To provide support for program personnel in the Occupational Education Division.

- a. Assist in the modification of and amendments to the State Plan for Occupational Education.
- b. Assist in the preparation of the annual Projected Plan of Activities and in the preparation of the annual Descriptive Report of the Occupational Education Division.
- c. Assist program personnel in the Occupational Education Division to obtain and analyze data needed for the justification and implementation of new or expanded educational programs.
- d. Refer training requests to the appropriate persons in the Occupational Education Division for implementation.
- e. Keep abreast of current literature and legislation as a basis for serving the information needs of personnel in the Department of Public Instruction.

4. To identify issues and problems which require study through research.

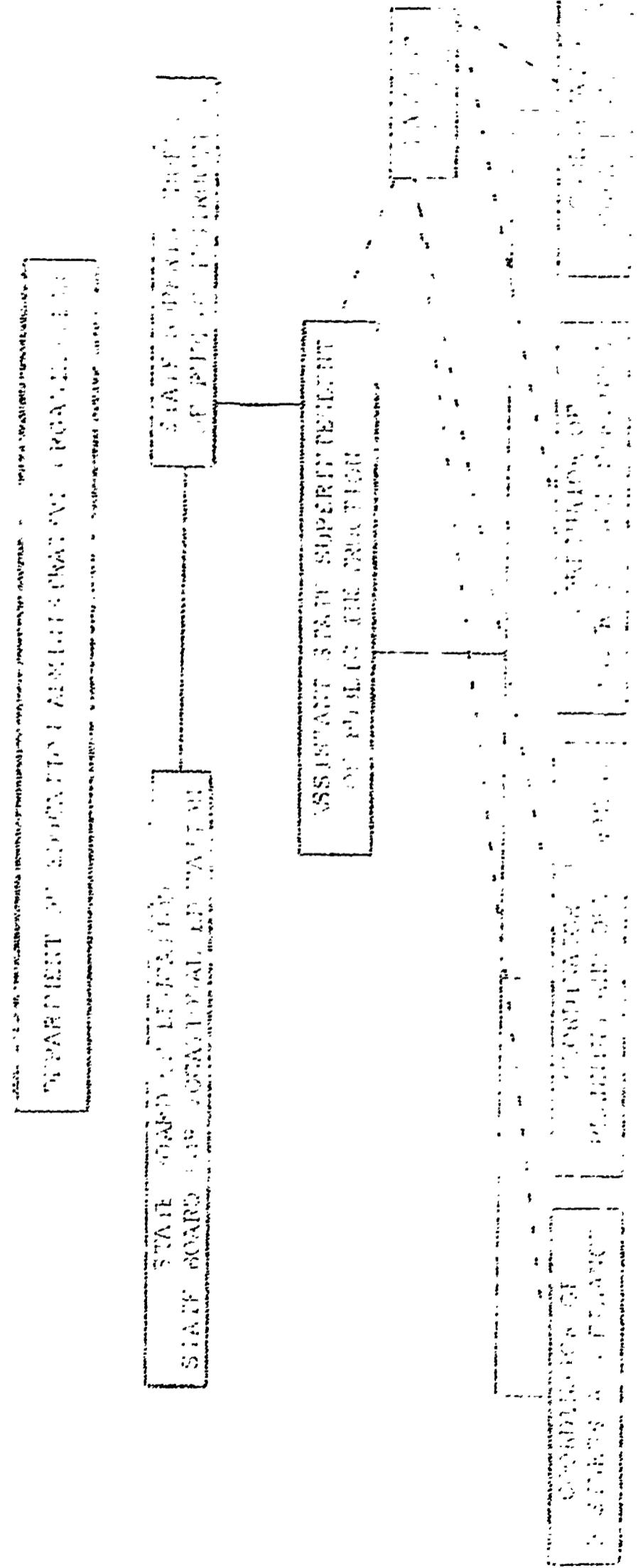
- a. Develop a list of potential research problems.
- b. Contact businesses and industries in the State.
- c. Hold conferences with program service area personnel in the Occupational Education Division.
- d. Follow up board and committee activities to identify issues and problems, e.g., State Board of Public Instruction, State Vocational Advisory Committee, State Commission for Higher Education, and State Research Council.

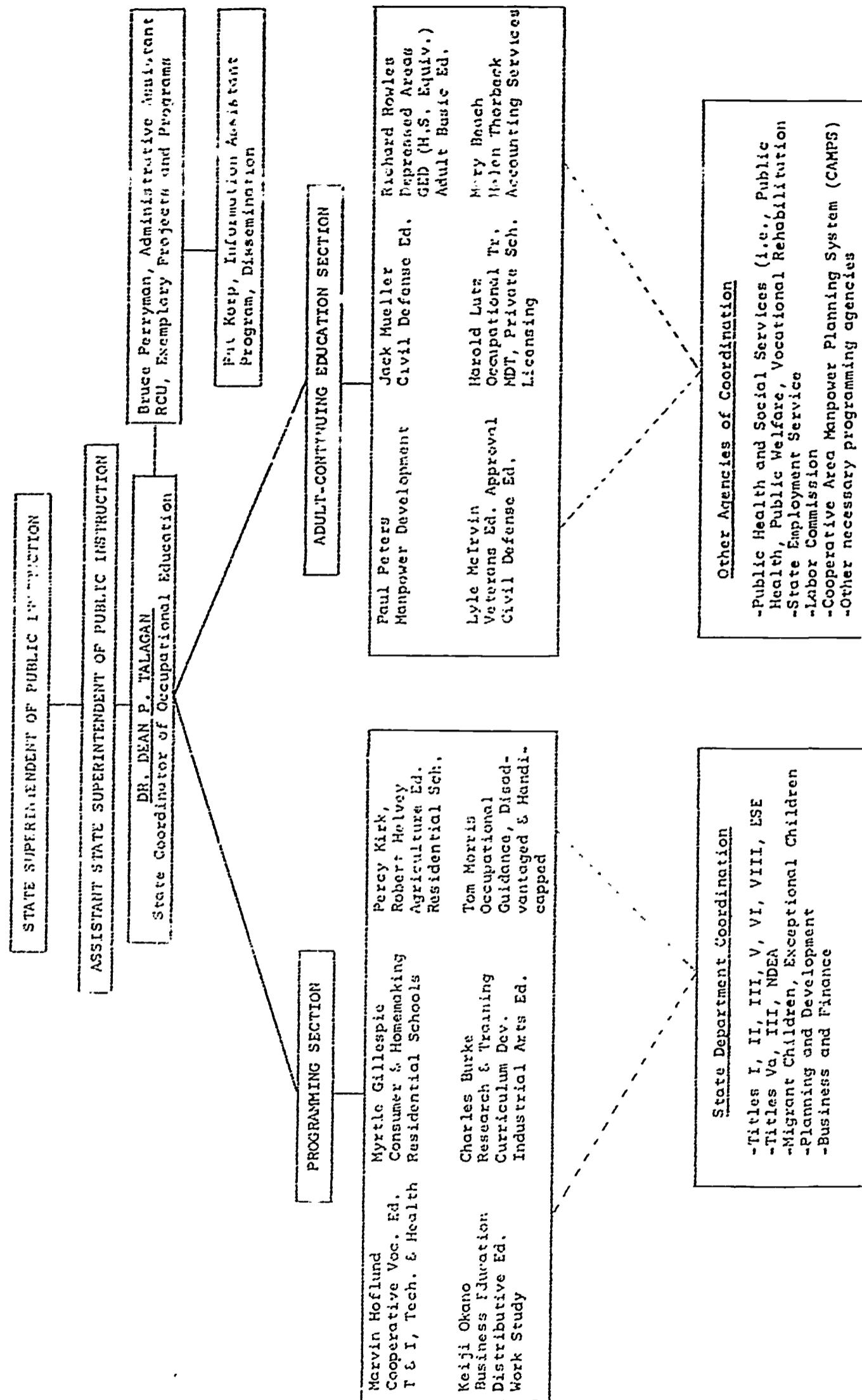
5. To establish and maintain working relationships with agencies, institutions, and organizations which are concerned with employment, human resources, and education.

- a. Develop a directory and classify all cooperating institutions, agencies, and organizations that will participate in occupational research activities in cooperation with the Research Coordinating Unit.
- b. Provide information about the educational services which are available through the Occupational Education Division.
- c. Provide liaison between the Occupational Education Division and agencies, institutions and organizations, e.g., telephone contacts, correspondence, and conferences.
- d. Encourage and assist in the development of working agreements among state agencies concerned with occupational education.

6. To assist in the planning and development of secondary and post-secondary educational programs, facilities and staff.
  - a. Analyze and project research findings as they pertain to employment opportunities and training needs in agricultural, managerial, clerical, sales, technical, industrial, service, and other occupational areas.
  - b. Collect curriculum outlines and related materials.
  - c. Gather and analyze information necessary for the clustering of occupations which require similar preparation for employment.
  - d. Analyze and project research findings as they pertain to employment opportunities and training needs as a basis for planning teacher training, recruitment, and placement.
7. To assist in the development of a statewide system of occupational education information.
  - a. Modify and adapt report and record forms to the system.
  - b. Determine new kinds of information to be gathered, e.g., contact hours, full-time equivalent students.
  - c. Develop a technique for disseminating information collected through the system.
8. To assist in the evaluation of occupational education programs.
  - a. Utilize occupational research for the continuous evaluation of occupational education offered in the state.
  - b. Assist in the development of techniques and instruments for the evaluation of occupational education in the State.
9. To promote occupational education.
  - a. Participate in conferences and seminars for the furtherance of occupational education techniques and materials.
  - b. Participate on an individual basis or as members of panels to present information and materials which relate to Research Coordinating Unit activities and occupational education in the State.

- c. Assist in the preparation of booklets, brochures, and other media developed by the Occupational Education Division.
- 10. To coordinate activities and exchange information with selected states.
  - a. Exchange publications.
  - b. Distribute progress reports.
  - c. Request and distribute, upon request, research information concerning employment opportunities and educational offerings.





DIVISION OF OCCUPATIONAL (VOCATIONAL-TECHNICAL) EDUCATION

DR. DEAN F. TALAGAN, COORDINATOR  
OCCUPATIONAL (Vo-Tech) EDUCATION

Bruce Perryman, Administrative Ass't  
RCU, Exemplary Projects and Programs

Pat Korp, Information Ass't  
Program, Dissemination

PROGRAMMING SECTION

Marvin Hoflund, Cooperative Vocational Ed.  
T.S.I., Technical, Health Education

Myrtle Gillespie, Consumer and Homemaking  
Education, Residential Schools

Percy Kirk, Robert He'vey, Agriculture  
Education, Residential Schools

Keiji Okano, Business Education  
Distributive Education, Work Study

Charles Burke, Research and Training,  
Industrial Arts Ed., Curriculum Dev.

Tom Morris, Disadvantaged and Handicapped  
Occupational Guidance

ADULT-CONTINUING EDUCATION SECTION

Paul Peters  
Manpower Development Training

Harold Lutz, Occupational Training,  
MDT, Private School Licensing

Richard Rowles, Depressed Areas  
GED ((High School Equivalency)  
Adult Basic Education

Lyle McIrvin, Veterans Education Approval  
Civil Defense Education

Jack Mueller, Civil Defense Education

Mary Beach, Helen Thorbeck  
Accounting Services

## APPENDIX D

POSITION: Director, Wyoming Research Coordinating Unit for Occupational Education

SECTION ASSIGNMENT: Occupational Education

DATE: August 8, 1969

PREPARED BY: Bruce C. Perryman

### JOB DESCRIPTION

#### GENERAL OVERVIEW:

Performs responsible supervisory and administrative work in the Wyoming State Department of Education. Under the general direction of the Coordinator of Occupational Education, is responsible for directing and supervising all activities of the Wyoming Research Coordinating Unit and exemplary programing; providing consultative services to the University, junior colleges, local school districts, and other appropriate organizations and agencies; identifying areas of needed research, designing research projects; collecting and analyzing data and disseminating the results. Supervises a staff of professional and non-professional assistants engaged in consultative and clerical work concerning research and statistics, and exemplary programs.

#### TYPE OF ACTIVITIES PERFORMED:

##### (a) General:

1. Stimulates research and exemplary programing by encouraging exploration into the problems of occupational education.
2. Provides technical assistance in the development, evaluation, and funding of research and exemplary project proposals.
3. Assists in developing pilot programs for testing and making practical application of research data.
4. Develops instruments and techniques for evaluating occupational programs of the State.
5. Survey data on employment opportunities, emerging occupational trends, and job projections which serve as a base for planning occupational programs, curricula and facilities.

6. Maintains liaison with other sections of the Wyoming State Department of Education, other agencies of the State, the University, junior colleges and local school districts on various phases of research and development.
7. Maintains liaison with other states having Occupational Research Coordinating Units.
8. Maintains liaison with the U. S. Office of Education on matters of occupational research and dissemination.
9. Consults with visitors to the Wyoming State Department of Education seeking information regarding occupational research and information.
10. Performs related work as required.

(b) Specific:

1. Local School Systems Relationship
  - a. Defines research problems and assists in the preparation of proposals -- research and exemplary.
  - b. Develops research and exemplary project applications.
  - c. Evaluates research and exemplary project applications prior to submitting them formally to the RCU or to the USOE.
  - d. Assists in development and administration of data-gathering instruments.
  - e. Assists in tabulating, summarizing data and information gathered for use in research projects.
  - f. Helps in identifying consultants for research and exemplary projects.
  - g. Supplies recent research findings and suggested uses of those findings.
  - h. Plans and directs activities designed to develop research competency.
  - i. Plans and assists in providing training sessions in the use of educational research and resource materials stored in the RCU office.

2. The University of Wyoming and Wyoming Junior Colleges
  - a. Distributes findings of research studies relating to occupational education.
  - b. Assists in administration and direction of graduate assistants in occupational education.
  - c. Assesses the value of research proposals concerned with occupational education.
  - d. Assists in recruiting and training researchers in occupational education.
  - e. Keeps research and teacher education personnel informed of problems needing study.
  - f. Assists in funding and planning of workshops and seminars for potential researchers.
3. Occupational Education Section, State Department of Education
  - a. Assists in abstracting and distributing completed research findings to interested persons.
  - b. Assists in the planning, funding and conducting of in-service training programs for persons interested in developing research competencies.
  - c. Development of long-term research plans.
  - d. Administers the maintenance of an index of research in progress and a library of completed occupational research.
  - e. Develops guidelines for field testing of promising innovative programs, demonstration programs, and other research activities for improving occupational education.
  - f. Conducts, or assists in conducting, research projects assigned by the Occupational Education Section.
  - g. Administers funds and provides for budget planning for occupational research and exemplary programs.
4. U.S. Office of Education and National Research Centers
  - a. Assists in the review and evaluation of research proposals from local education centers before they are sent to the USOE for review and possible funding.
  - b. Cooperates on certain aspects of broad research projects having regional or national significance.

- c. Cooperates in a nation-wide acquisition and distribution of completed occupational research.

#### 5. Other Interested Agencies

- a. Assists in assessing research proposals.
- b. Assists in the development of research instruments.
- c. Acts as consultant.
- d. Assists in 'dovetailing' programing funds for the greatest benefits of the user.

ED034893

**ADDENDUM #3  
BIBLIOGRAPHY  
OF  
RESEARCH COORDINATING UNIT  
EDUCATIONAL MATERIALS**

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**Compiled by:**

**Research Coordinating Unit  
Occupational Education Section  
State Department of Education  
Capitol Building,  
Cheyenne, Wyoming 82001**

**October, 1969**

VTO100097

**Accession No.** **Subject:**  
**A** **ACCOUNTING**  
**WY-186** **Research and Development Section**  
A HANDBOOK FOR CLASSIFICATION AND DEFINITION OF ACCOUNTS  
Cheyenne, Wyoming; State Department of Education; 1969  
50 p.  
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1968  
369 p.  
A study of possible relationships among state-level organization, state-level administration and the operation of programs in vocational technical education. Lists the following information by state: legal basis for the administration of vocational-technical education; selection of state officers for the administration of vocational-technical education; position of vocational-technical education in the state administration of education; organization for the administration of vocational-technical education; professional staff for state administration of vocational-technical education; schools providing vocational-technical programs, 1966-67; teachers and teaching positions in vocational-technical programs; enrollments in vocational-technical programs; enrollments and expenditures for vocational-technical programs for years 1962-63 and 1966-67; sources of funds for vocational-technical education for years 1962-63 and 1966-67; and expenditures for vocational-technical education for years 1962-63 and 1966-67.

**CA-036A** Swanson, J. Chester  
LEADERSHIP ROLE, FUNCTIONS, PROCEDURES AND ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION AGENCIES AT THE STATE LEVEL:  
AN ANALYSIS OF PERCEIVED DIFFERENCES, 1966-67  
Berkeley, California; School of Education, University of California;  
1968  
89 p.  
Investigation of factors which might be associated with differences in perceptions of state-level administration of selected groups.

**CA-037B** **A NATIONWIDE STUDY OF THE ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION AT THE STATE LEVEL: STUDY OF PERCEPTIONS OF STATE-LEVEL ADMINISTRATION**  
Berkeley, California; School of Education, University of California;  
1967  
502 p.  
A study to secure the perceptions of persons with major responsibilities in vocational-technical education as to the effectiveness of vocational education services in the public schools of their state.

Accession No. Subject:

Administration (cont.)

DC-301

REPORT OF THE COMMITTEE ON ADMINISTRATION OF TRAINING PROGRAMS  
Washington, D.C., U.S. Office of Education 1968

78 p.

A study of the administration of training programs, with recommendations for improving said administration.

CA-035

WYOMING: INDIVIDUAL STATE REPORT

Berkeley, California; School of Education, University of California; 1967

153 p.

Report on responses from the state of Wyoming, taken from the 1967 study conducted by the University of California at Berkeley on the administration of vocational-technical education.

WY-195

ADULT BASIC EDUCATION

Jensen, Glenn, Project Director

ABE ADMINISTRATORS' INSTITUTE: REGION VIII

Laramie, Wyoming; University of Wyoming; 1969

79 p.

Report of an ABE administrators' institute held in June, 1969, for two weeks. Includes log of activities, evaluation of the institute by participants, case studies and a list of participants.

AR-010

ADVISORY COMMITTEES

Burt, Samuel M.

UTILIZATION OF VOLUNTEER INDUSTRY-EDUCATION ADVISORY  
COMMITTEES FOR EVALUATING A STATE VOCATIONAL -TECHNICAL  
EDUCATION SYSTEM

Kalamazoo, Michigan; W. E. Upjohn Institute for Employment Research; 1969

56 p.

Description of an experimental project conducted in Arkansas using an advisory committee of business and industry leaders to evaluate the state vocational education programs.

AR-013

AGRICULTURE

Brooker, George R.

PROPOSED CONTENT OF AGRICULTURAL MACHINERY TECHNOLOGY  
CURRICULUM FOR FOUR-YEAR COLLEGES AND UNIVERSITIES

Fayetteville, Arkansas; Research Coordinating Unit, 1969

70 p.

A curriculum guide for agricultural machinery technicians, and content for specific agricultural machinery courses.

**Accession No.** **Subject:**  
**OH-112** Agriculture (cont.)  
**Hensel, James H. and Cecil H. Johnson**  
**THE IDENTIFICATION OF OPINION LEADERS AMONG TEACHERS OF VOCATIONAL AGRICULTURE**  
**Columbus, Ohio; Center for Vocational and Technical Education 1969**  
**76 p.**  
**Project to develop a means of identifying opinion leaders among teachers of vocational agriculture and to determine personal and social characteristics of these opinion leaders.**

**WY-194** Wyoming Study Committee for Vocational Agriculture  
A STUDY OF THE ALL-DAY PROGRAMS OF VOCATIONAL AGRICULTURE IN WYOMING  
**Laramie, Wyoming; University of Wyoming; 1963**  
**91 p.**  
**Information to determine the position of vocational agriculture and to make recommendations for needed revisions and improvements to strengthen the vocational agriculture program in Wyoming.**

**CA-036A** ANALYSIS  
**See also ADMINISTRATION**

**DC-313** ANNUAL REPORT  
ANNUAL REPORT  
**Washington, D.C., U.S. Office of Education: 1969**  
**8 p.**  
**First annual report of the National Advisory Council on Vocational Education; includes operation of vocational education programs and recommendations for the overall improvement of such programs.**

**DC-312** PROGRESS IN EDUCATION  
**Washington, D.C.; U.S. Office of Education: 1969**  
**54 p.**  
**Summary of educational research projects and programs administered by the Office of Education, submitted under Title IV, Section 2(d), P.L. 89-10.**

**IA-025** AREA SCHOOLS  
**Cage, Bob N.**  
COST ANALYSIS OF SELECTED EDUCATIONAL PROGRAMS IN THE AREA SCHOOLS OF IOWA  
**Ames, Iowa; Iowa State University of Science and Technology; 1968**  
**22 p.**  
**A study to determine the relationships between the current-unit-cost-per-student-contact-hour for arts and science transfer curricula and selected vocational-technical programs.**

Accession No. **Subject:**  
**ARTS AND HUMANITIES PROGRAMS**

DC-295

U.S. OFFICE OF EDUCATION SUPPORT FOR THE ARTS AND THE HUMANITIES  
 Washington, D.C.: U.S. Office of Education 1968  
 20 p.

Summary of legislation which provides support for programs in the arts and humanities and a brief description of the assistance or program offered, who may apply, how funds are disbursed, federal share of support and the Office of Education source for additional information.

**B**  
**BIBLIOGRAPHY**

AR-012 **Nichols, Jack D.**

A SELECTED BIBLIOGRAPHY ON TRAINING IN CORRECTIONAL INSTITUTIONS  
 WITH ANNOTATIONS DEVELOPED FOR A PARTIAL LIST OF THIS  
 BIBLIOGRAPHY

Fayetteville, Arkansas; Research Coordinating Unit 1969

30 p.

A bibliography of publications on training in correctional institutions.

DC-310

EDUCATION: LITERATURE OF THE PROFESSION  
 Washington, D.C.; U.S. Office of Education 1969

34 p.

A bibliography based on the acquisitions of the Educational Materials Center from April 16, 1966 through December 31, 1968.

**C**  
**CAREERS**

HA-015 **Leton, Donald A. & Carol S. Dodd**

CONCEPTS OF CAREER FIELDS HELD BY ELEVENTH GRADE STUDENTS  
 Honolulu, Hawaii; Research Coordinating Unit: 1968

45 p.

Survey of 1005 eleventh grade students on their aspirations after graduation from high school. Responses were broken down as follows: proportion of ethnic group respondents indicating levels of education for career; proportions of male and female indicating levels of education; personal influences on career choices in various ethnic groups; experiential influences on career choices in various ethnic groups; occupations most frequently chosen by various ethnic groups; career choices of high, average and low ability groups; occupational orientation inventory scores by career choice groups; personality needs scores by career choice groups. Also includes summary of career choice questionnaires for the three participating high schools.

MS-009 **Shill, James F.**

CAREERS OF RURAL MALE HIGH SCHOOL SENIORS IN MISSISSIPPI:  
 A STUDY OF OCCUPATIONAL INTERESTS, ASPIRATIONS AND  
 EXPECTATIONS

State College, Mississippi; Mississippi State University; 1968  
 73 p.

**Accession No.** **Subject:**  
**MS-009** **Careers (cont.)**  
A study to compare the occupational aspirations, expectations, and interests of seniors who had one or more years of vocational agriculture instruction to those who had no such instruction and to study factors relating to the occupational aspiration/expectation differentials among and between vo-ag and non vo-ag seniors.

**TX-015** **CENTRAL SERVICE TECHNICIANS**  
**Emmert, Mrs. Olive Gray**  
A CENTRAL SERVICE TECHNICIAN TRAINING PROGRAM  
Dallas, Texas Research Coordinating Unit; 1969  
104 p.  
Final report of a pilot project on a central service technician training program conducted at El Centro College in Dallas, Texas. Includes curriculum, format, and evaluations of the program.

**ID-011** **COMPUTER INDUSTRIES**  
**EXPANDING EMPLOYMENT OPPORTUNITIES IN THE COMPUTER AND DATA PROCESSING INDUSTRIES**  
**Silver Springs, Maryland Institute of Computer Technology**  
11 p.  
Report of a pilot project to test the feasibility of training unemployed persons with less than a high school education to work in the computer industry.

**DC-312** **COOPERATIVE RESEARCH**  
See also ANNUAL REPORT

**PA-027** **COST ANALYSIS**  
**Kaufman, Jacob J.**  
COST-EFFECTIVENESS ANALYSIS AS A METHOD FOR THE EVALUATION OF VOCATIONAL AND TECHNICAL EDUCATION  
University Park, Pennsylvania Pennsylvania State University; 1969  
17 p.  
Discussion of cost-benefit analysis in terms of logic and meaning, misconceptions, problems and limitations of cost-benefit analysis, and conclusions of a study conducted by the Institute for Research on Human Resources at the Pennsylvania State University.

**IA-025** See also AREA SCHOOLS

**MN-025** **CREATIVITY**  
**Hahn, Marshall**  
REVIEW OF RESEARCH ON CREATIVITY  
Minneapolis, Minnesota; Research Coordinating Unit; 1968  
25 p.  
Brief review of research that has been conducted on creativity. Includes definition of creativity, characteristics of the creative individual, and the relationship of teaching to creativity.

**Accession No.** **Subject**  
**CURRICULUM**

**DC-303** **Yagi, Kan; Hilton M. Bialek; John E. Taylor; Mrs. Marcia Garman; and Dr. Howard E. McFann**  
**THE DESIGN AND EVALUATION OF VOCATIONAL TECHNICAL EDUCATION CURRICULA THROUGH FUNCTIONAL JOB ANALYSIS**  
**Washington, D.C.: George Washington University; 1968**  
**95 p.**  
**Report of research to develop a system for classifying vocational-industrial education objectives that could be used not only to develop new curricula but also to describe, analyze and compare existing programs.**

**CURRICULUM DEVELOPMENT**

**CA-040** **A GUIDE FOR THE DEVELOPMENT OF CURRICULUM IN VOCATIONAL AND TECHNICAL EDUCATION**  
**Los Angeles, California: Division of Vocational Education, University of California; 1969**  
**36 p.**  
**A guide for persons concerned with curriculum development in vocational and technical education. Provides a basis from which curriculum and curriculum materials may be developed, implemented, and evaluated.**

**CURRICULUM GUIDE**

**WY-196** **FRAMEWORK FOR THE SOCIAL STUDIES IN WYOMING. GRADES K-12**  
**Cheyenne, Wyoming: State Department of Education; 1969**  
**74 p.**  
**Curriculum guide for social studies, developed from the publication 'Wyoming Curriculum Guide for Social Studies.' This is a revision of that publication.**

**DC-316** **MAINTENANCE MAN, BUILDING**  
**Washington, D.C., U.S. Office of Education; 1969**  
**26 p.**  
**Suggested training course to assist administrators and teachers in preparing persons in the manipulative skills and knowledge necessary for competence in the maintenance profession.**

**DC-315** **RECREATION PROGRAM LEADERSHIP**  
**Washington, D.C.: U.S. Office of Education; 1969**  
**87 p.**  
**Suggested curriculum for courses to train recreation program leaders.**

**AR-013** **See also AGRICULTURE**

**Accession No.** **Subject:**  
**D**  
**MD-011** **DATA PROCESSING**  
**See also COMPUTER INDUSTRIES**

**WY-193** **DESIGNING EDUCATION FOR THE FUTURE**  
**Kirby, James R., Editor**  
**DESIGNING EDUCATION FOR THE FUTURE: 1980**  
**Cheyenne, Wyoming: State Department of Education: 1969**  
**43 p.**  
**The Wyoming DEF major report, includes curriculum and program, school district organization, school finance, and the state education agency.**

**WY-193A** **DESIGNING EDUCATION FOR THE FUTURE: 1980**  
**Cheyenne, Wyoming: State Department of Education 1969**  
**96 p.**  
**Compendium to the Wyoming DEF major report; includes implementation of principles of finance; proposals for financing public education in Wyoming; proposals for financing public education in Wyoming; sources of increased revenue; a proposed statute for school district organization in Wyoming: DEF: an overview of the policies, procedures, and practices of the DEF project in Wyoming.**

**CH-113** **DISADVANTAGED**  
**Campbell, Robert E., Jean L. Parsons, Samuel H. Osipow, Frank M. Fletcher, and Chandra M. N. Mehrotra**  
**VOCATIONAL DEVELOPMENT OF DISADVANTAGED JUNIOR HIGH SCHOOL STUDENTS**  
**Columbus, Ohio; Center for Vocational and Technical Education, The Ohio State University; 1969**  
**88 p.**  
**A study to explore the educational-vocational perceptions and expectations of disadvantaged junior high school students.**

**DC-298** **TRAINING DISADVANTAGED GROUPS UNDER THE MANPOWER DEVELOPMENT AND TRAINING ACT**  
**Washington, D.C.; U.S. Department of Labor; 1963**  
**24 p.**  
**Evaluation of the extent to which training programs established under the MDTA are meeting the need for marketable skills among disadvantaged groups.**

**ND-020** **DISTRIBUTIVE OCCUPATIONS**  
**Pokladnik, Leonard F.**  
**OPPORTUNITIES IN DISTRIBUTIVE OCCUPATIONS IN BISMARCK, NORTH DAKOTA**  
**Grand Forks, North Dakota Research Coordinating Unit; 1969**  
**29 p.**  
**A study to determine what work station and eventual employment opportunities exist for high school students of vocational education in Bismarck, North Dakota.**

**Accession No.** **Subject:**  
**ECONOMIC STUDY**

WY-191 Davis, Thomas S.  
A STUDY OF WYOMING PEOPLE  
Laramie, Wyoming; University of Wyoming, College of Commerce and Industry: 1965  
38 p.  
Study of the economy of the state of Wyoming, including population, income, labor force and housing.

WY-188 Harmston, Floyd K. & Victor L. Scovel  
A STUDY OF THE RESOURCES, PEOPLE, AND ECONOMY OF THE BIG HORN BASIN, WYOMING  
Cheyenne, Wyoming; Natural Resources Board: 1959  
153 p.  
A descriptive analysis of the Big Horn Basin area, including natural and human resources, an analysis of present-day economic activity, and a discussion of development possibilities.

WY-189 Rajender, G. R., Floyd K. Harmston and Dwight M. Blood  
A STUDY OF THE RESOURCES, PEOPLE AND ECONOMY OF TETON COUNTY  
Laramie, Wyoming; University of Wyoming, College of Commerce and Industry: 1967  
66 p.  
Study to update the basic data on the population and economy of Teton County and to determine the impact of tourism on the economy of Teton County.

**ECONOMICS**

WY-187 WYOMING TRADE WINDS  
Laramie, Wyoming; University of Wyoming, College of Commerce and Industry: 1960-1967 (several issues)  
approximately 24 p. per issue.  
Periodical of the College of Commerce and Industry on the economy of Wyoming.

**EDUCATIONAL NEEDS**

WA-010 Kirkbride, Keith  
EDUCATIONAL NEEDS OF THE NON-COLLEGE BOUND HIGH SCHOOL STUDENT  
Olympia, Washington; Research Coordinating Unit: 1968  
121 p.  
Study to determine the educational needs of non-college bound high school students and recommend curriculum changes.

**EDUCATIONAL PLANNING**

CT-016 Pinsky, David  
CONFERENCE ON MANPOWER SURVEYS FOR VOCATIONAL-TECHNICAL EDUCATIONAL PLANNING  
Storrs, Connecticut; University of Connecticut: 1969  
162 p.  
Report of a conference on manpower surveys, including speeches given, workshop findings, and results and accomplishments of the

Accession No. Subject:  
EMPLOYMENT

DC-304

VOCATIONAL TRAINING, EMPLOYMENT AND UNEMPLOYMENT: PART ONE -- NATIONAL TRENDS  
 Washington, D.C.: U. S. Office of Education; 1969  
 29 p.  
 An analysis of unemployment and employment trends and manpower requirements of the 1970's.

DC-304A

VOCATIONAL TRAINING, EMPLOYMENT AND UNEMPLOYMENT: PART TWO-- PROFILES OF THE STATES  
 Washington, D.C.: U.S. Office of Education; 1969  
 123 p.  
 Survey to explore the relationship between net migration, labor force projections, unemployment and Federally sponsored training programs.

EMPLOYMENT OPPORTUNITIES  
 See also COMPUTER INDUSTRIES

EVALUATION

ARKANSAS VOCATIONAL EDUCATION EVALUATION PROJECT  
 Fayetteville, Arkansas: University of Arkansas; 1969  
 12 p.  
 Setting up of an evaluation program in the Arkansas school system, beginning with a pilot effort in five local school districts.

See also ADVISORY COMMITTEE

See also COST ANALYSIS

See also CURRICULUM

EXPENDITURES

A NATIONWIDE STUDY OF THE ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION AT THE STATE LEVEL: ANALYSIS OF EXPENDITURES FOR VOCATIONAL-TECHNICAL EDUCATION PROGRAMS  
 Berkeley, California: School of Education; University of California; 1967  
 61 p.

Expenditures for vocational education through the State agency for those programs which are operated in public schools and related to federal funds provided for this purpose. Also gives source of these funds from the Federal government, state government and local school districts.

Accession No. Subject:

F FACILITIES

CH-110

Neckley, Richard F., Ivan E. Valentine and M. J. Conrad  
A GENERAL GUIDE FOR PLANNING FACILITIES FOR OCCUPATIONAL  
PREPARATION PROGRAMS

Columbus, Ohio; Center for Vocational and Technical Education;  
Ohio State University; 1969  
85 p.

A general guide to be used when planning facilities for  
occupational preparation programs.

CT-015

FOLLOW-UP  
SUMMARY REPORT ON FIVE AND TEN YEAR FOLLOW-UP STUDY OF  
CONNECTICUT STATE VOCATIONAL-TECHNICAL SCHOOLS GRADUATES  
OF CLASSES OF 1958 AND 1963

Wallingford, Connecticut: University Research Institute of  
Connecticut, Inc.; 1969

25 p.

Analysis of data from graduates of Connecticut vocational  
schools. Includes employment history, current employment status and  
hourly salary, job relatedness to school trade taken, reasons for  
unrelated employment, job satisfaction, retrospective evaluation of  
vocational-technical school course work, retrospective evaluation  
of vocational-technical school education, suggestions for improvement  
of school programs, further education, apprenticeship experience,  
and organizational affiliations.

NY-045

FORD FOUNDATION  
FORD FOUNDATION GRANTS IN VOCATIONAL EDUCATION

New York, New York; Ford Foundation; 1967

31 p.

List of grants made by the Ford Foundation to various  
institutions for programs in vocational education.

H  
DC-314

HANDICAPPED

Young, Earl B., Editor

VOCATIONAL EDUCATION FOR HANDICAPPED PERSONS - HANDBOOK FOR  
PROGRAM IMPLEMENTATION

Washington, D.C.; U.S. Office of Education; 1969

126 p.

Information needed by vocational educators when planning  
programs for the handicapped.

KY-005

HEALTH WORKERS

Rowe, Harold H. & Mrs. Mary Ellen Solomon, Project Coordinators  
REACTIVATION OF INACTIVE SKILLED HEALTH WORKERS IN THE  
COMMONWEALTH OF KENTUCKY

Louisville, Kentucky; Research Coordinating Unit; 1969  
107 p.

Accession No. Subject:

Health Workers (cont.)

KY-005

A project to increase the supply of skilled health manpower by location and recruitment of inactive health personnel, promotion of educational programs designed for the reactivation of inactive health personnel, assessing the employment opportunities of categories of reactivated health personnel by geographic areas, and development of a system for placement of reactivated health workers.

HOME ECONOMICS

KY-006 Gorman, Anna M.

**EMPLOYMENT OPPORTUNITIES IN WHICH KNOWLEDGE AND SKILL IN HOME ECONOMICS ARE NEEDED**  
Lexington, Kentucky; University of Kentucky; 1969

105 p.

Information related to employment opportunities in which home economics knowledge and skill are needed.

JOB ANALYSIS

DC-303 See also CURRICULUM

JOB SURVEY

AR-011 Maddox, Dr. Marion E.

**PART-TIME ENTRY JOB SURVEY OF PRAIRIE GROVE, ARKANSAS**  
Fayetteville, Arkansas; Research Coordinating Unit; 1969  
25 p.

Determination of available work stations suitable for standard supervised cooperative part-time occupational programs, determination of available work stations suitable for general work experience.

LEADERSHIP DEVELOPMENT

OH-111

**LEADERSHIP DEVELOPMENT SEMINAR FOR STATE DIRECTORS OF VOCATIONAL EDUCATION**  
Columbus, Ohio; Center for Vocational and Technical Education; 1969  
39 p.

A seminar to discuss topics of vital concern to state directors of vocational education in the planning and implementing of vocational and technical education programs in their states. Also to provide information on the latest and most relevant research.

HUMANPOWER

DC-302

**AMERICANS VOLUNTEER**  
Washington, D.C.; U.S. Department of Labor; 1969  
43 p.

Survey of people working as volunteers.

Accession No. Subject

Manpower (cont.)

DC-299

MANPOWER POLICY AND PROGRAMS IN FIVE WESTERN EUROPEAN COUNTRIES: FRANCE, GREAT BRITAIN, THE NETHERLANDS, SWEDEN AND WEST GERMANY

Washington, D.C.: U.S. Department of Labor: 1966

50 p.

Description of the manpower policies in five western European countries, explains how these policies are developed, and discusses some of the major elements of the programs.

DC-300

MANPOWER RESEARCH

Washington, D.C.: U.S. Department of Labor: 1969

49 p.

Listing of research conducted in the various manpower fields.

DC-298

See also DISADVANTAGED

CT-016

See also EDUCATIONAL PLANNING

N

DC-313

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

See also ANNUAL REPORT

O

MS-009

OCCUPATIONAL INTEREST

See also CAREERS

OCCUPATIONAL STRUCTURE

SC-003

Carpenter, Earl T. & David H. Coile

THE OCCUPATIONAL STRUCTURE OF DILLON COUNTY, SOUTH CAROLINA  
Clemson, South Carolina. Research Coordinating Unit: 1968  
110 p.

A study to determine the complete occupational structure of one county in South Carolina. Includes firms, workers by tenure, female workers, workers needing vocational education.

SC-002

White, Robert H. & John H. Rodgers

UNION COUNTY, SOUTH CAROLINA. THE OCCUPATIONAL STRUCTURE AND IMPLICATIONS FOR VOCATIONAL EDUCATION  
Clemson, South Carolina; Research Coordinating Unit: 1968  
109 p.

Study to determine the minimum number and kinds of occupational training needed for employment expansion and replacement in the next two years.

OPINION LEADERS

OH-112

See also AGRICULTURE

Accession No. Subject  
ORGANIZATION OF VOCATIONAL EDUCATION

CA 037A

A NATIONWIDE STUDY OF THE ADMINISTRATION OF VOCATIONAL-TECHNICAL EDUCATION AT THE STATE LEVEL: THE CURRENT STATUS OF STATE-LEVEL ORGANIZATION

Berkeley, California; School of Education, University of California  
1967

313 p.

Summary of the organization and program activities of vocational education at the state level in all 50 states.

P PLANT SITE SELECTION

UT-015

MANUFACTURING PLANT SITE SELECTION FACTORS INCLUDING THE IMPLICATIONS OF VOCATIONAL EDUCATION

Provo, Utah; Utah Technical College 1967

212 p.

Study to determine if a vocational school, junior college, etc., in an area is a factor when industry chooses a site for a plant.

WY-192 POVERTY

Escolas, Edmond L.

WYOMING'S POOR AND THE WAR ON POVERTY

Laramie, Wyoming; College of Commerce and Industry 1965

16 p.

A profile of poverty in Wyoming.

IL-041 PUPIL REQUIREMENTS FILE

Patton, Stanley R., Project Director

A SUGGESTED PUPIL REQUIREMENTS FILE

Chicago, Illinois; Benjamin C. Willis Educational Services, Inc.  
1969

96 p.

Information that should be included in a pupil requirements file to assist in developing predictions regarding dropout and terminal high school students.

R RECOMMENDATIONS

WY-154A

Booz, Allen and Hamilton, Inc.  
RECOMMENDED ORGANIZATION FOR WYOMING PUBLIC ELEMENTARY AND SECONDARY SCHOOL EDUCATION

Cheyenne, Wyoming; State Department of Education 1969

50 p.

Recommendations for improving the organization of the State Department of Education and local school units to satisfy identified needs (see WY-154, original bibliography).

DC-315 RECREATION

See also CURRICULUM GUIDE

**Accession No.** **Subject:**  
**RESEARCH**

KS-030 **Larsen, Thomas L.**  
**ABSTRACTS OF KANSAS RESEARCH IN VOCATIONAL EDUCATION**  
**Topeka, Kansas; Research Coordinating Unit: 1969**  
**27 p.**  
**Brief abstracts of research done in Kansas colleges and universities on vocational education.**

PA-028  
**PENNSYLVANIA'S ABSTRACTS OF RESEARCH AND RELATED MATERIALS IN VOCATIONAL EDUCATION**  
**Harrisburg, Pennsylvania; State Department of Education; 1969**  
**109 p.**  
**Abstracts of research and research related projects completed in Pennsylvania from 1965 through June 30, 1969.**

PA-025 **See also CREATIVITY**

DC-300 **See also MANPOWER**

**RESEARCH COORDINATING UNITS**

PA-025  
**NORTHEASTERN REGIONAL RCU CONFERENCE IN A NUTSHELL**  
**Harrisburg, Pennsylvania, Research Coordinating Unit: 1969**  
**21 p.**  
**Highlights of speeches presented at the working conference meetings of the Northeast Regional RCU Conference.**

**RESOURCES OF WYOMING**

WY-190  
**RESOURCES AND ECONOMY: WYOMING, 1964**  
**Cheyenne, Wyoming; Natural Resources Board: 1965**  
**26 p.**  
**Publication giving physical features, natural resources, population and labor force, and economic characteristics of Wyoming.**

S  
**SOCIAL STUDIES**  
**See also CURRICULUM GUIDE**

RI-003  
**SPECIAL NEEDS**  
**Cloward, Ed. D., Robert D. & Heinze Grotzke**  
**A SURVEY OF SPECIAL NEEDS STUDENTS IN RHODE ISLAND**  
**Providence, R.I.; Research Coordinating Unit: 1969**  
**20 p.**  
**A survey of special needs students (9th grade) to determine characteristics of special needs students, how many special needs students there are in the state and what vocational education programs will be needed for training these students.**

Accession No. Subject  
STATE DEPARTMENT OF EDUCATION  
WY-154A See also "RECOMMENDATIONS"

WY-197 STATE PLAN

WYOMING STATE PLAN: TITLE III, E.S.E.A.  
Cheyenne, Wyoming: State Department of Education; 1960  
97 p.  
Plan for supplementary educational center and services to be funded under Title III, E.S.E.A.

T NC-015 TEACHER MORALE  
Johnson, Mildred B., Joseph R. Clary and William J. Brown, Jr.  
SELECTED FACTORS ASSOCIATED WITH VOCATIONAL TEACHER MORALE  
IN GUILFORD AND JOHNSTON COUNTIES, NORTH CAROLINA  
Brown, William J., Jr. and Robert D. Warren  
A COMPARISON OF VOCATIONAL AND ACADEMIC TEACHER MORALE IN  
JOHNSTON COUNTY, NORTH CAROLINA  
Raleigh, North Carolina: Research Coordinating Unit; 1969  
83 p.  
Factors influencing teacher moral and a comparison of the morale of vocational and academic teachers.

WY-197 TITLE III, E.S.E.A.  
See also STATE PLAN

NY-050 TRADE AND INDUSTRIAL EDUCATION  
Grieve, William R.  
THE SELECTION OF STUDENTS FOR ENTRANCE INTO TRADE PROGRAMS  
IN PUBLIC SECONDARY SCHOOLS  
New York, N.Y.; New York University; 1969  
269 p.  
A study to determine attributes of success in the machine and electrical trades and to develop an instrument or instruments to be used in the prediction of this success.

DC-304 TRAINING  
See also EMPLOYMENT  
DC-304A See also EMPLOYMENT

AR-012 TRAINING IN CORRECTIONAL INSTITUTIONS  
See also BIBLIOGRAPHY

DC-301 TRAINING PROGRAMS  
See also ADMINISTRATION

Accession No. Subject:

TRANSFER STUDENTS

NY-046

Willingham, Warren W. & Murhan Findikyan

TRANSFER STUDENTS: WHO'S MOVING FROM WHERE TO WHERE, AND  
WHAT DETERMINES WHO'S ADMITTED?

New York, N.Y., College Entrance Examination Board; 1969

10 p.

A survey of 146 four-year colleges and universities as to  
their criteria for admitting transfer students.

TRENDS

DC-304

See also EMPLOYMENT

U

DC-304

UNEMPLOYMENT

See also EMPLOYMENT

DC-304A

See also EMPLOYMENT

V

DC-297

VOCATIONAL AMENDMENTS

CONGRESSIONAL RECORD - SENATE

Washington, D.C.; Government Printing Office 1968

11 p.

The amendments to the Vocational Education Act of 1963, as  
presented to the Senate on October 1, 1968.

VA-003

VIRGINIA'S PROGRAM OF VOCATIONAL EDUCATION

Richmond, Virginia; State Department of Education; 1969

10 p.

Virginia's vocational education programs, includes enrollment,  
status of construction of vocational education facilities, programs  
for students with special needs, innovations, supervisory services,  
national rankings, developments in teacher education, recent  
Federal legislation and special programs.

TN-011

DOORWAYS TO OPPORTUNITIES

Murfreesboro, Tennessee; Vocational Curriculum Laboratory; 1969

20 p.

Vocational Education programs in Tennessee, programs available  
and programs to be put into operation.

CA-035

See also ADMINISTRATION

CA-036

See also ADMINISTRATION

CA-036A

See also ADMINISTRATION

Accession No. Subject:  
Vocational Education (cont.)  
 CA-037 See also ADMINISTRATION  
 CA-037B See also ADMINISTRATION  
 DC-303 See also CURRICULUM  
 CA-040 See also CURRICULUM DEVELOPMENT  
 WY-045 See also FORD FOUNDATION  
 DC 314 See also HANDICAPPED  
 OH-111 See also LEADERSHIP DEVELOPMENT  
 SC-002 See also OCCUPATIONAL STRUCTURE

VOCATIONAL EDUCATION AND OCCUPATIONS

DC-311 VOCATIONAL EDUCATION AND OCCUPATIONS  
 Washington, D.C.: U.S. Office of Education; 1969  
 292 p.

Occupational classifications, programs, and worker trait groups. Book to be used primarily in completing certain sections of the state plan.

VOCATIONAL EDUCATION NEEDS

WY-198 Opp, Norman L.  
A SURVEY OF VOCATIONAL TECHNICAL EDUCATION NEEDS OF LOVELL,  
WYOMING

Lovell, Wyoming, Research Coordinating Unit: 1960  
 52 p.

A study to determine the vocational needs and desires of the secondary school students (8-12), to determine the vocational needs of the business community in view of state and national trends, to locate adequate work stations that could be used as part of a diversified co-op program in vocational education and to draw conclusions from the data collected and make recommendations for implementing the information.